Nos. 16-70496 \& 16-70497

## IN THE UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

> ALTERA CORPORATION \& SUBSIDIARIES, Petitioner - Appellee,
> v.
> COMMISSIONER OF INTERNAL REVENUE, Respondent - Appellant.

Appeal from the United States Tax Court, Nos. 6253-12, 9963-12

## SUPPLEMENTAL EXCERPTS OF RECORD VOLUME 1

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Capital Reporting Company


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| :---: | :---: |
| 1 In the united states tax court | MR. MAGARITY. Will Magarity counsel |
| In the Matter of: , | 2 Altera. |
| ALTERA CORPORATION \& SUBSIDIARIES | 3 MR. NETTER: Brian Netter, counsel for |
|  | Altera. |
| ) Docket Nos.: 6253-12, | THE COURT: All right. I'm going to warn |
|  | 6 all of you that you're going to have to remind me of |
| $\left.7 \underset{( }{7} \begin{array}{c}\text { COMMISSIONER OF INTERNAL } \\ \text { REVENUE, }\end{array}\right)$ | 7 your names as we move forward on the hearing. But |
| 8 Respondent.' | 8 welcome to all of you. Please be seated, gentlemen |
| U.S. Tax Court | 9 and lady. |
| 10 <br> 400 Second Street, NW Washington, D. C. 20217 | 10 We are here today for a hearing on cross |
| 11 <br> July 24, 2014 | 11 motions for partial summary judgment in conjunction |
| 12 July 24,2014 | 12 with the Altera case. The issue that the Court and |
| 13 The above-ntitled matter came on for | 13 counsel have to address is obviously an important |
| 14 hearing, pursuant to notice, at 9:58 a.m. | 14 one, as evidenced by the number of people who are in |
| $15 \quad \begin{gathered}\text { BEFORE: } \\ \text { Judge }\end{gathered}$ HONORABLE L. PAIGE MARVEL | 15 the courtroom today. |
|  | 16 My first question is, are there |
| 17 DONALD FALK, ESQUIRE | 17 representatives of the media present? If so, I'd |
| 18 DUANE WEBBER, ESQURE | 18 like to see hands, please. Welcome. Obviously, this |
| 19 WILL MAGARTIT, ESQUIRE |  |
| $20 \quad \begin{gathered}\text { BRIAN NETTER, ESQUIRE } \\ 815 \text { Connecticut Avenue, NW }\end{gathered}$ | 19 is an open hearing. And so to the extent that |
| $20 \quad$ Washington, D.C. 20006-4078 | 20 coverage is appropriate, we're happy to have |
| For the Respondent: | 21 representatives present. However, I warn all of you |
| $22 \quad \begin{aligned} & \text { Kevin croke, espulire } \\ & \text { AARONVAUGHN, ESOUIRE }\end{aligned}$ | 22 that recording devices -- and this is not just for |
| 23 FARAAD ASGHAR, ESQUSIRE | 23 the media representative here, this is for |
| $24 \quad 100$ First Street, Suite 1800 | 24 everybody -- recording devices, cell phones, anything |
| San Francisco, California 94 | 25 that might be used to take photographs, record what |
| 2 |  |
| PROCEEDINGS | 1 is said in this courtroom, must be turned off. If I |
| (9:58 a.m.) | 2 hear a cell phone ring or buzz during this hearing, |
| THE CLERK: Calling from the calendar | 3 I'm going to be the new owner of a cell phone. So |
| 4 Docket No. 6253-12, and consolidated case Docket No. | 4 please keep that in mind. It's very distracting to |
| 5 9963-12, Altera Corporation and Subsidiaries. | 5 have cell phones go off. So please, please, please |
| 6 Please state your appearances. | 6 turn them completely off. Everybody do that. Yes? |
| 7 MR. FALK: Good morning, Your Honor. | 7 Let me see nods. Good. All right. |
| 8 Donald Falk for Petitioner, Altera Corporation and | 8 Let me address this to counsel. We have |
| 9 Subsidiaries. | 9 not talked about the parameters of the hearing here. |
| 10 MR. CROKE: Good morning, Your Honor. | 10 I will be happy to hear from counsel as to how you |
| 11 Kevin Croke for Respondent. | 11 would like this hearing to go. And if I like what |
| 12 MR. VAUGHN: And good morning, Your Honor. | 12 you say, then we'll do it your way. If I don't like |
| 13 Aaron Vaughn for Respondent as well. | 13 what you say, we'll do it my way. |
| 14 MR. ASGHAR: Good morning, Your Honor. | 14 So who wants to go first? |
| 15 Farhad Asghar for Respondent. | 15 MR. CROKE: I'll speak, Your Honor. |
| 16 Mr. CROKE: And, Your Honor, this is Mary | 16 Respondent would propose brief, concise statements of |
| 17 Wynne. And she's the manager of this trial. | 17 the party's positions, and then open it up for Your |
| 18 MS. WYNNE: Good morning, Your Honor. | 18 Honor to address the parties with questions. |
| 19 THE COURT: All right. We've got four, and | 19 THE COURT: So far you're talking my |
| 20 we've got one. There are few for Petitioner. | 20 language. What's brief? |
| 21 MR. FALK: There are some more, Your Honor. | 21 MR. CROKE: I would propose no more than |
| 22 Mr. WEBBER: Duane Webber, counsel for | 22 say between 10 and 15 minutes. |
| 23 Altera also. | 23 THE COURT: That's where we part company. |
| 24 MR. KITTLE-KAMP: Tom Kittle-Kamp for | 24 Let me hear from -- |
| 25 Altera. | 25 Mr. FALK: I regret, Your Honor, that I |

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uncontrolled party transaction that does not have an arrangement that accurately reflects the economic activities of the participants, then it's not
comparable. And to the extent that stock-based
compensation is a driver of economic activity within
that arrangement, then yes, it would have to include
stock-based compensation as a cost.
THE COURT: All right. So phrased a little differently, again, you seem to be saying that the only comparable uncontrolled transaction that could be considered with regard to QCSA and its adequacy is one that includes stock-based compensation as a cost.

MR. CROKE: Yes. I believe that's fair. There may be -- yes, I would think that's a fairly --

THE COURT: And to be fair to you, the reason that you wanted to have the additional language is because you believe that the statement, in whatever it was, the conference report or some aspect of the legislative history says that the result needs to take into account the economic burdens and benefits of the cost sharing transaction. Is that right?

MR. CROKE: That's correct. And that is the explanation in the preamble and the notice of proposal we're making for it.

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THE COURT: Now, again, tell me how what you just said to me reconciles with the arms-length standard, which the preamble to the regulation clearly indicates is being applied in these regulations.

MR. CROKE: Right. So the regulation for QCSAs, we start with the proposition as you described. We're trying to reach an arms-length, applying the arms-length standard; we're trying to reach an arms-length result. And so under dash 7, the result, an arms-length result is reached if you have this perfect matching of cost with expected benefits. Thereby you meet what Congress directed, which is this notion of the parties' economic activities being clearly reflected. So, yes, we are reaching an arms-length result that's consistent with what the arms-length standard calls for. So there's a perfect consistency here. The arms-length standard does not call for in all instances you must rely on third-party comparables.

THE COURT: Well, if that's the case, then how are you going to do what the reg says? You take a controlled taxpayer, and you put them on tax parity with an uncontrolled taxpayer by determining the true taxable income of the controlled taxpayer. How? And

## -

reference specifically to the arms-length standards,
which has been adopted in the regulations dating back
decades, how can you possibly analyze a result to
determine if it's arms-length result without at least
making an effort to evaluate what uncontrolled
parties do in analogous similar or identical
circumstances?
MR. CROKE: The regulations define tax
parity by saying that tax parity is achieved if the
controlled parties -- if the government determines
the controlled parties' true taxable income. So the
tax parity is not to say looking and determining
whether there's tax parity by comparing initially
what a controlled party did and what an uncontrolled
party did. What it's trying to say is an
uncontrolled party will reach a true taxable income
in the marketplace. With a controlled party -- with
one party controlling all subsidiaries, that's going
to be problematic. So what we have to do is find the true taxable income of the controlled party. And
once we do that, once we have determined the true taxable income of the controlled party, then we've achieved parity. And so what the QCSA regime is intended to do is, is to arrive at the true taxable income, if you opt to participate in the QCSA regime.

Now, as I mentioned, if it's the taxpayer's wish to have their transaction structured and tested under another method and say, "We have all these perfect comparables," they can do that. But the QCSA
regime is set up where if they follow these
particular rules, then they will reflect their true
taxable income.
THE COURT: Counsel, I don't want to mischaracterize what you're saying to me. But I need to warn you that it sure sounds to me like you're
saying the only relevant standard here is
commensurate with income and not arms-length.
Explain to me why I'm wrong.
MR. CROKE: Arms-length -- the arms-length standard is a standard that's defined in the regulations. And so when we're trying to understand what arms-length means, we may have in our heads that arms-length always means we look to what other parties do. And we try to mimic that. The regulations recognize that that just isn't always the appropriate way to reach the correct transfer price.
And so the arms-length standard in the regulation calls for achieving an arms-length result. There's not going to be a perfect result. Typically, we have ranges. And so the goal is not just reference to

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uncontrolled parties, it's trying to reach the armslength result in an imperfect world.

THE COURT: Let me kind of explore with you what the problem may be here. Let me point out first of all that the preamble to the regs clearly
indicates that one of the things that these regs are doing is to, and I quote, "provide rules that coordinate the rules of 1.482-7 regarding QCSAs with the arms-length standard, as set forth in 1.482-1." So clearly the government has staked a position in these regulations that they are not abandoning the arms-length standard and that they are making an effort, hopefully reasonably and in good faith, to try and reconcile that standard with what it's requiring taxpayers to do with regard to QCSA. So okay so far?

MR. CROKE: Yes.
THE COURT: Let's assume that the record, the rulemaking record reflects that no uncontrolled party will share SBC costs. You've got an armslength standard, and you've got a commensurate with income overlay. Which incidentally the government in its white paper and elsewhere has adamantly insisted is completely consistent with the arms-length standard, correct?

MR. CROKE: Correct.
THE COURT: So my question to you is this. In the universe where a controlled party transaction has to be evaluated and there are absolutely no comparables available -- I'm not talking identical transactions; I'm talking about comparables,
different transactions that can be used to evaluate a controlled party transaction. Explain to me the inner relationship between the arms-length standard and the commensurate with income standard. What
happens when there are no comparables?
MR. CROKE: When there are no comparables, the intent of the regulations is to achieve an armslength --

THE COURT: That's not what I asked you. Let me be more specific. In the absence of any comparables, can the arms-length standard operate as a standard in evaluating anything?

MR. CROKE: Yes.
THE COURT: How?
MR. CROKE: As provided in the regulations, the arms-length standard is defined, is intended to reach an arms-length result. There are methods in the regulations to meet that arms-length result. So if there are no comparables, you would choose a
method, the best method to price the transaction,
because there are no comparable transactions. So --
THE COURT: Is it -- sorry.
MR. CROKE: I'm sorry. So I'm just saying
if there are no comparables as you suggested, then we
would look at another method. For example, if it
isn't an exact comparable, you use a CUT, a
comparable uncontrolled transaction. If you don't
have good comparables, if you have no comparables,
you would have to look for another method because
you're required to use the best method. And if you
use that method, you will reach an arms-length
result. And that's consistent within the
regulations, consistent with the arms-length standard.

THE COURT: So, again, if I'm understanding you correctly, in the absence, in the situation where there's a complete absence of any identifiable comparables, then the government would point to the regulations and basically say, "In the absence of comparables, we will aim for an arms-length result by constructing a reasonable set of rules designed to figure out what the parties in an uncontrolled transaction should have done or would have done." Is that right?

## UNITED StATES TAX COURT

ALTERA CORPORATION \& SUBSIDIARIES,


MEMORANDUM IN SUPPORT OF RESPONDENT'S MOTION FOR PARTIAL SUMMARY JUDGMENT

RESPONDENT respectfully submits this Memorandum in Support of Respondent's Motion for Partial Summary Judgment.

## I. ISSUE FOR PARTIAL SUMMARY JUDGMENT

Whether Treas. Reg. § $1.482-7^{1}$ requires petitioner's Cayman Island subsidiary Altera International, Inc. ("Altera International") to reimburse Altera Corporation ("Altera US") for stock-based compensation that Altera US paid to its employees who conducted intangible development under the qualified cost sharing arrangement between Altera US and Altera International during the tax years ending December 31, 2004 ("2004"), December 30, 2005 ("2005"), December 29, 2006

[^0]of $R \& D$ cost sharing arrangements generally should be proportionate to profit." Id.

Using the intangible development costs (including SBC) incurred by each controlled participant in a cost sharing arrangement as a measure of the actual economic activity undertaken by each and requiring participants to share such costs in proportion to their anticipated economic benefits from the intangibles developed in the arrangement implements Congress' clearly expressed intent. In so doing, section 1.4827 produces allocations that are rationally related to section 482's commensurate with income requirement.

By ensuring that expenditures made and deducted by a U.S. corporation for the benefit of a foreign subsidiary are appropriately reimbursed, section $1.482-7$ also produces allocations that are rationally related to the statute's clear reflection of income requirement. As the history of section 482 and its regulations (as well as the plain language of section 482, which does not mention the arm's length standard) shows, the arm's length standard is a creature of the regulations. Treasury introduced the arm's length standard as the sole means of determining whether transfer prices clearly reflect income within the meaning of section 482. "A controlled transaction meets the arm's length standard if the results of the
transaction are consistent with the results that would have been realized if uncontrolled taxpayers had engaged in the same transaction under the same circumstances (arm's length result)." Treas. Reg. § 1.482-1(b)(1). Just as the arm's length standard is the specific regulatory implementation of the clear reflection of income principle in section 482, section 1.482-7 is the specific implementation of the arm's length standard with regard to QCSAs. By definition, a QCSA produces an arm's length result and thus clearly reflects income only if all the requirements of section $1.482-7$ are met, including the sharing of SBC costs. Treas. Reg. § 1.482-7(a)(3).

## 1. The 2003 Cost Sharing Amendments were the product of extensive and careful deliberation by Treasury.

The Supreme Court explained in Chevron that an agency interpretation is entitled to deference where "the regulatory scheme is technical and complex, the agency considered the matter in a detailed and reasoned fashion, and the decision involves reconciling conflicting policies." Chevron, 467 U.S. at 865 . The section 482 regulatory scheme, including the arm's length standard and the cost sharing rules are among the most complex in the tax law. Treasury decided to amend the cost sharing rules because taxpayers contended that the 1995

## UNITED STATES TAX COURT

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ALTERA CORPORATION )
& SUBSIDIARIES,
    ()
    Docket Nos. 6253-12
    9963-12
    Judge Marvel
COMMISSIONER OF INTERNAL REVENUE, )
Respondent. )
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## RESPONDENT'S REPLY MEMORANDUM

RESPONDENT respectfully submits this Reply Memorandum to petitioner's Brief In Opposition To Respondent's Motion For Partial Summary Judgment.

## INTRODUCTION AND SUMMARY OF ARGUMENT

The parties do not disagree about how to interpret the amendments to Treas. Reg. §§ 1.482-1 ${ }^{1}$ and 1.482-7, T.D. 9088, 2003-2 C.B. 841, 68 Fed. Reg. 51171 (Aug. 26, 2003) ("2003 Cost Sharing Amendments" or "amendments"), nor about the result from applying them to petitioner's qualified cost sharing arrangement ("QCSA") in the tax years before the Court. Petitioner does not contend that the regulations as amended are ambiguous, or in conflict, or that their language means anything other than what

[^1]1. "Evidence of arm's length transactions" is not the "touchstone" for the taxation of controlled transactions.

Persisting in its effort to convince the Court that Congress wanted section 482 regulations to be based solely on uncontrolled agreements, petitioner tells the Court that "the long-recognized purpose of section 482 makes evidence of arm's length transactions between unrelated parties the touchstone for the taxation of controlled transactions." (PBO at 23) But it points to nothing in the statute or legislative history, and still has not squared its claims with Congress's entirely different purpose in amending the statute in 1986. Treasury created the arm's length standard employed by the cases petitioner cites. But even assuming, arguendo, that the arm's length standard is not a creature of the regulations, no case or statute bars Treasury from promulgating a transfer pricing method that is not based on evidence of unrelated party conduct.

> a. Petitioner's View of Section 482's Purpose is Unmoored From the Statutory Text and Disregards the Legislative History.

Unlike Treasury's explanations of the basis and purpose for its QCSA regulations, petitioner's conclusions about section 482's purpose are divorced from the statute and its legislative history. Not once in its discussion of statutory purpose does
petitioner quote the statute. (PBO at 18-22) ${ }^{6}$ But "statutory construction must begin with the language employed by Congress and the assumption that the ordinary meaning of that language adequately expresses the legislative purpose." Engine Mfrs.' Assoc'n v. S. Coast Air Quality Mgmt. Dist., 541 U.S. 246, 252 (2004) (internal citation omitted). Making bold statements about legislative purpose without discussing the language Congress enacted makes no sense. See Shannon v. United States, 512 U.S. 573, 584 (1994) ("[C]ourts have no authority to enforce a principle gleaned solely from legislative history that has no statutory reference point.") (internal quotation marks and alteration omitted).

Further, "even if legislative history could carry petitioner[] all the way" to its desired goal, "this legislative history cannot." See Nat'l Cable \& Telecomms. Ass'n v. FCC, 567 F.3d 659, 665 (D.C. Cir. 2009) (emphasis removed). As discussed in detail in the NPRMs, Preambles and Respondent's Memorandum, the congressional record strongly indicates that petitioner has it wrong. ${ }^{7}$ One House report discusses concerns about the pre-
${ }^{6}$ A later section eventually quotes the statute, once. (PBO at 23)
${ }^{7}$ See H.R. Rep. 99-426 T. VI, D (1985) ("[Section 482] authorizes the Treasury Department to allocate income among related parties as necessary to prevent the evasion of taxes or clearly to reflect the income of such parties. Treasury

1986 Code's overreliance on alleged comparables in the case of intangibles; petitioner incorrectly concludes that a snippet from that discussion of prior law now mandates reference to uncontrolled party conduct. Compare PBO at 25 with H.R. Rep. No. 99-841, II-637 (1986) (Conf. Rep.) and RM at 32-35. While some phrases from the legislative history may support petitioner's theory, those phrases are less favorable to petitioner when one reads the surrounding text. See H.R. Rep. 99-426 at 426 ("Commensurate with income" does not mandate the use of a particular method, and all "facts and circumstances" should be considered in picking a method. But the "profit or income stream" must "be given primary weight.") Even giving petitioner the benefit of the doubt at every juncture, Chevron and the APA require a much, much higher showing before invalidating agency action.

> b. The Cases Cited by Petitioner Do Not Limit Treasury's Authority to Promulgate the Rules Found in Treas. Reg. $\$ 1.482-7$ (d) (2).

Petitioner cites statements from selected court opinions to inject an immutable "parity purpose" into section 482 that can only be achieved by reference to uncontrolled transactions. (PBO 15-23) But the judicial authorities cited by petitioner

Regulations under section 482 interpret this provision by attempting to determine what an arm's length charge between unrelated parties would have been.")
interpret only then-existing Treasury regulations, and do not support petitioner's claim of a statutory arm's length standard. Nor do those cases alter the scope of Treasury's Congressionally -delegated authority.

The Supreme Court's statement in Commissioner v. First Sec. Bank, 405 U.S. 394,400 (1972), that "'[t]he purpose of section 482 is to place a controlled taxpayer on a tax parity with an uncontrolled taxpayer...'" is not a construction of section 482 as petitioner implies. (PBO at 18) Rather, the Court directly quotes Treas. Reg. § 1.482-1(b)(1)(1971): "As stated in the Treasury Regulations, the 'purpose of section 482 is to place a controlled taxpayer on a tax parity with an uncontrolled taxpayer...'"" 405 U.S. at 400, 407. Similarly, all of the references to tax parity in the cases cited by petitioner (PBO at 18) are either direct citations to the Treasury Regulations or are supported by citation to them. See Peck v. Commissioner, 752 F.2d 469, 472 (9th Cir. 1985) (citing section 1.482-1) ; Eli Lilly \& Co. V. Commissioner, 84 T.C. 996, 1123, 1130-31, fn. 53 (1985) (same), aff'd in part \& rev'd in part, 856 F.2d 855 (7th Cir. 1988); Paccar, Inc. V. Commissioner, 85 T.C. 754, 787 (1985) (same), aff'd, 849 F.2d 393 (9th Cir. 1988). All of these cases involve tax years predating the 1986 commensurate with income amendment, and make clear that there is no uniform

October 31, 2002

ACA
Advancing the Business of Technology

Drafters of Notice of Proposed Rulemaking REG106359-02
Internal Revenue Service
1111 Constitution Avenue, NW
Washington, DC 20224-0002

To Whom It May Concern:
We discovered that there was a factual error in the original comments AeA filed with you on Notice of Proposed Rulemaking REG106359-02 regarding the Treatment of Employee Stock Options for Qualified Cost Sharing Arrangements. We respectfully request that you replace our original submission, with this corrected version enclosed, with eight copies.

Additionally, please find enclosed an outline (along with eight copies) of the proposed AeA oral comments for the public hearing scheduled for November 20, 2002.

We apologize for our error and thank you for accepting our corrected re-submission. Please feel free to contact me with any questions or concerns.

Sincerely,


Tax Counsel and Director Tax Policy
AeA - Advancing the Business of Technology
Tel: (202) 682-4454 Fax: (202) 216-2662
Caroline_Hurley@aeanet.org

Enclosures

October 31, 2002

# OUTLINE OF AeA's PROPOSED ORAL COMMENTS At Hearing on Proposed Treasury Regulations on Treatment of Employee Stock Options for Qualified Cost Sharing Arrangements [Notice of Proposed Rulemaking REG106359-02] scheduled for November 20, 2002 

## Speaking on behalf of AeA and its Member Companies:

Caroline Graves Hurley
Tax Counsel and Director Tax Policy
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Tel: (202) 682-4454 Fax: (202) 216-2662
Caroline_Hurley@aeanet.org

## Outline of Comments:

I. Introducing AeA (American Electronics Association) / Importance of Stock Options and Cost Sharing to AeA Members 2 minutes
II. Arm's Length Experiences of AeA Member Companies Negotiating

Co-Development and Joint Venture Agreements 2 minutes
III. Anti-Competitive Effects of Proposed Regulations
A. Magnification of Effects if Extended to Intercompany Services 1 minute
B. Double Taxation of U.S. Companies / Denial of Deductions intended to Encourage Employee Ownership and Entrepreneurship 2 minutes
C. Unanticipated Consequences: New Opportunities for Foreign

Competitors / New Incentives to Move R\&D Jobs Out of U.S. / Impact on Military Procurement Contracting Rules 3 minutes

# COMMENTS ON THE PROPOSED REGULATIONS <br> <br> ON THE TREATMENT OF EMPLOYEE STOCK OPTIONS <br> <br> ON THE TREATMENT OF EMPLOYEE STOCK OPTIONS <br> FOR QUALIFIED COST SHARING ARRANGEMENTS 



October 28, 2002
(Corrected version filed October 31, 2002)

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## INTRODUCTION

AeA submits these comments on behalf of itself and its member companies in response to the request of the Treasury and the Internal Revenue Service (IRS) in Notice of Proposed Rulemaking REG106359-02 for comments on proposed regulations (Proposed Regulations) relating to the treatment of stock-based compensation for purposes of qualified cost sharing arrangements (QCSAs).

Advancing the business of technology, AeA (the American Electronics Association) is the nation's largest high-tech trade association. AeA has more than 3,000 member companies that span the high-technology spectrum, from software, semiconductors and computers to Internet technology, advanced electronics and telecommunications systems and services. AeA has been the accepted voice of the U.S. technology community since 1943.

The overwhelming majority of AeA's member companies issue non-statutory stock options to their employees. The high-tech industry was the first in the U.S. economy to distribute stock options to its entire workforce, from entry-level positions up to top executives. Stock options help employers attract and retain qualified workers by giving them a financial stake in the future of the companies for which they work. It can rightly be said that stock options are a key engine of growth and innovation in the U.S. economy.

## Many AeA member companies also rely on QCSAs to facilitate the development

 of their intangible property. The high-tech industry is notable for its global scale, where even the newest and smallest players face competition from companies around the world. In response, most high-tech companies have established research, manufacturing and distribution operations in several countries, at times as a result of cross-border mergers or acquisitions. These companies have found cost sharing to be an indispensable tool for managing global intangible property rights in a way that has, until the current conflict with the IRS over stock options, avoided contentious and costly disputes with tax authorities over arm's length licenses and royalties.The Proposed Regulations would require companies to increase the pool of intangible development costs to be shared under their QCSAs by an amount based on the valuation of employee stock options under one of two methods. As a general rule, companies would use a valuation method based on the spread at exercise ("exercise-date valuation"). Certain public companies listed on a U.S. stock exchange would be able to elect to apply an economic model to value the options when granted ("grant-date valuation") in conformity with the alternative valuation allowed by U.S. generally accepted accounting principles ("U.S. GAAP"), which is typically reported in companies' financial statement footnotes.

The IRS has raised the stock option issue related to QCSAs many times over the past decade in litigation, letter rulings and other forums. The IRS position has changed significantly from time to time, shifting between various grant-date and valuation-date methodologies. Most recently, the IRS has made a motion for summary judgment based on a position similar in some respects to the Proposed Regulations' exercise-date method in Tax Court litigation with Xilinx Inc. (docket \#4142-01). In the interest of full disclosure, we note that Xilinx is a member of the AeA and AeA has submitted an amicus brief to the U.S. Tax Court on this issue in connection with the Xilinx litigation.

AeA commends the IRS and Treasury for turning at last to the rigorous procedures of notice-and-comment rulemaking in its attempt to resolve this important issue.

However, AeA believes that the approach of the Proposed Regulations is fundamentally
flawed because it violates the international arm's length standard, which is the very foundation of transfer pricing law and policy. As a result of this defect, a number of anti-competitive effects on U.S. industry can be foreseen if the regulations were to be finalized in the proposed form.

## SUMMARY OF COMMENTS

## Arm's Length Standard

Although the Proposed Regulations purport to be consistent with the arm's length standard, it is clear to AeA that they do not produce an arm's length result. The

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central inquiry should be what costs independent parties would share under the same circumstances, and how they would measure and share these costs. Actual commercial dealings and sound economic reasoning both demonstrate that independent parties would not share amounts based on a valuation of employee stock options under either of the allowed methods.

Evidence from actual commercial dealings shows conclusively that independent parties do not agree to share or reimburse any amount for another party's employee stock options beyond the amount such options are "in the money" when granted (known as "intrinsic value"). A stock option's intrinsic value, which is the difference between the option's exercise price and the market price of the underlying stock at the time of grant, is the measure of compensation expense related to employee stock options that is currently adopted by most companies for purposes of U.S. GAAP. This treatment of stock options is demonstrated in a wide variety of contracts between unrelated parties and is, in fact, compelled by Federal government contracting regulations for transactions between the U.S. military and private contractors amounting to billions of dollars annually.

Sound economic reasoning also demonstrates that neither exercise-date nor grantdate valuation of employee stock options is arm's length. Independent parties would not agree to use exercise-date valuation for cost sharing purposes because the payments would be dependent on stock market fluctuations that are uncertain in time and amount, not directly related to the joint development activity and entirely out of the control of the paying party. Independent parties would not agree to use grant-date valuation either because the economic models (such as Black-Scholes) designed to value market traded options are highly speculative and inaccurate when applied to employee stock options due to their very long terms and their strict vesting and exercise restrictions. Moreover, the grant of at-the-money employee stock options does not, in any way, reduce corporate cash flow; but merely represents potential dilution of shareholders' ownership in the event employee efforts increase the value of the shares. No independent company would
agree to share "costs" based on the value of potential benefits to another company's shareholders.

## Anti-Competitive Effects

Due to their inconsistency with the arm's length standard, the Proposed Regulations would have a number of anti-competitive effects on U.S. industry. Many U.S. multinationals will suffer double taxation when foreign tax authorities disallow deductions for cost sharing payments paid by the local subsidiary to its U.S. parent to the extent the payments are based on stock option valuations. Conversely, the Proposed Regulations would create an opportunity for some foreign multinationals to receive U.S. tax deductions for stock options that would not otherwise be available to them under their home country law. Both the double-taxation effect and the new foreign benefit would be greatly magnified if the IRS and Treasury extend the principles of the Proposed Regulations to other areas of transfer pricing besides cost sharing.

It is significant to note that the Proposed Regulations would only provide unwarranted benefits to foreign companies to the extent they perform research and development or other stock-compensated activities outside of the United States. By the same token, the Proposed Regulations would also create a powerful incentive for U.S. companies to move key research jobs offshore.

Secondary effects on U.S. industry can also be foreseen. Some U.S. high-tech companies would find the treatment of stock options for cost sharing required by the Proposed Regulations to be so onerous that they would discontinue offering options to all but the most senior executives. Others would become so embroiled in international tax disputes due to new uncertainty in cost sharing that they would find their businesses seriously disrupted. The negative impact on employee morale and business operations would severely damage the international competitiveness of U.S. industry in general, and AeA member companies disproportionately.

Lastly, the Proposed Regulations may adversely impact the Treasury in other, unexpected ways. For one thing, the Treasury is likely to find extra resources will be

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needed to deal with the international tax controversies generated. In addition, Treasury should expect to find that private contractors will have a strong incentive and rationale to request changes in government contracting regulations to allow them to charge out employee stock options in military procurement contracts - for, if the U.S. government truly believes parties at arm's length compensate others for their employee stock options, should it not do so itself?

In summary, we believe the Proposed Regulations should be withdrawn both because they contravene the arm's length standard, which is central to U.S. international tax policy, and because their direct and indirect effects will undermine the competitiveness of U.S. industry.

## COMMENTS

## I. Inconsistency with Arm's Length Standard

The arm's length standard is the foundation and guiding principle for all transfer pricing matters worldwide. In the United States, the arm's length standard has governed whether transactions between related parties "clearly reflect income" since the first set of Treasury Regulations for the U.S. income tax were promulgated in 1934. The arm's length standard has been re-affirmed in every revision of the regulations since that time, has been extensively debated and affirmed in the U.S. Congress, and has been upheld and extended by numerous court decisions.

Internationally, the arm's length standard has been broadly adopted in the domestic laws of nearly every country worldwide, is embedded in each and every bilateral tax treaty that the United States has concluded with other countries, and is continuously studied and refined in Guidelines issued by the Organization for Economic Cooperation and Development ("OECD Guidelines"). ${ }^{1}$ The OECD Guidelines make clear that cost sharing - or "cost contribution arrangements" ("CCA") to use OECD terminology - are no exception to the arm's length standard:

For the conditions of a CCA to satisfy the arm's length principle, a participant's contributions must be consistent with what an independent enterprise would have agreed to contribute under comparable circumstances given the benefits it reasonably expects to derive from the arrangement.
OECD Guidelines, para. 8.8.
To the credit of the IRS and Treasury, the Proposed Regulations recognize the centrality of arm's length standard. Proposed section 1.482-7(a)(3) explicitly refers to the rule of the existing Treasury Regulations providing that the arm's length standard applies

[^2]"in every case," ${ }^{2}$ but goes on to provide that the results of a QCSA will not be considered to be arm's length unless costs are determined and shared in the way it requires. As a result, this apparent affirmation of the arm's length standard amounts to mere lip service to the extent the requirements of the Proposed Regulation deviate from the arm's length standard.

Under international principles, the IRS and Treasury cannot simply declare what is, and is not, arm's length by fiat. As the above quotation from the OECD Guidelines makes clear, the central inquiry must be what costs independent parties would share under the same circumstances, and how such parties would measure and share these costs. In this inquiry, evidence of actual arm's length dealings is the most significant and persuasive if it is available and reliable. In the absence of extrinsic evidence, it is necessary to turn to sound economic reasoning regarding the likely behavior of independent parties under the hypothesized circumstances. In the following sections, we will demonstrate that the approach of the Proposed Regulations is neither supported by the available evidence nor consistent with sound economic reasoning.

## A. History of Cost Sharing/Stock Option Issue

## Brief History

A brief history is useful to provide context and to help frame the issue. Both independent parties and affiliated groups have relied on co-development or cost sharing agreements as a means to jointly develop intangible property for separate use or exploitation. Cost sharing is a relatively simple and effective way to manage intangible property rights and is an effective alternative for difficult and contentious cross-license and royalty arrangements that would otherwise be required. Cost sharing has been explicitly recognized by Treasury Regulations since 1968. See provisions that are now preserved at Treas. Reg. § 1.482-2A(d)(4).

[^3]By 1986, Congress became concerned that U.S. companies were taking advantage of the difficulties of finding comparable licenses to systematically understate royalties received from related parties. In order to give the IRS additional tools to combat perceived abuses, Congress amended section 482 to require that consideration for intangible property transferred in a controlled transaction be commensurate with the income attributable to the intangible. Tax Reform Act of 1986, Public Law 99-514. Congress made clear that the commensurate with income standard was meant to supplement the arm's length standard, not replace it.

Legislative history indicates that Congress recognized that cost sharing was a viable alternative to licensing that should be simpler and less contentious, and so did not intend to preclude the use of cost sharing among related parties provided the cost sharing allocation "reasonably reflect the actual economic activity undertaken by each [party]" and each party is "expected to bear its portion of all research and development costs. . . ." H.R. Rep. No. 99-841, at II-638 (1986) (emphasis added).

The final cost sharing regulations, promulgated in 1995, addressed these Congressional concerns by requiring that the participants share "the costs of development of one or more intangibles in proportion to their shares of reasonably anticipated benefits from their individual exploitation of the interests in the intangibles assigned to them under the arrangement," and specifying that it is necessary for the parties to share "all costs ... related to the intangible development area." Treas. Reg. § 1.482-7(a)(1) \& (d)(1) (emphasis added).

AeA believes that the existing regulations are consistent with the arm's length standard and appropriately address Congress' "commensurate with income" concerns. AeA does not dispute that the "reasonably anticipated benefits" formulation is consistent with the arm's length standard. Rather, the dispute centers around whether at-the-money employee stock options give rise to any additional compensation that is related to the intangible development area and, if so, how to measure and account for such additional compensation. Until now, the regulations have not specifically addressed the issue of employee stock options, but have provided general guidance suggesting that U.S. GAAP,
applied consistently, may be used to measure revenues and expenses. See Treas. Reg. §§ 1.482-7(i)

## IRS and Taxpayer Positions

IRS positions have widely diverged from time to time. Non-binding written guidance has recognized that, in the absence of specific regulations, "any reasonable method" of accounting for employee stock options should be allowed as long as it is consistently applied. ${ }^{3}$ IRS litigating positions have been roughly consistent with one or the other of the two methods allowed by the Proposed Regulations. For example, in its litigation with Seagate Technology, Inc., the IRS ultimately relied exclusively on a grantdate valuation theory to defend against the taxpayer's motion for summary judgment. ${ }^{4}$ After settling Seagate, the IRS has again reversed course in its current litigation with Xilinx, Inc., contending now that its exercise-date theory warrants summary judgment. ${ }^{5}$

By contrast, taxpayers have, for the most part, taken a single, consistent position on the stock option issue. Taxpayers have consistently concluded that there should not be an inclusion of any additional amount in the $R \& D$ cost pool to account for employee stock options except to the extent the options were in-the-money on the grant date. Two mutually reinforcing principles are the foundation of the taxpayers' position: first, taxpayers believe that independent parties negotiating at arm's length would not agree to share or reimburse amounts based on the other party's stock options; and, second, this treatment of at-the-money options is consistent with the accounting method that most

[^4]companies have adopted for U.S. GAAP and believe to most accurately reflect their true financial condition.

This second principle deserves some elaboration. Most U.S. taxpayers account for stock options for cost sharing in precisely the same way they account for them in their audited financial statements, electing to apply the rules of Accounting Principles Board Opinion No. 25 ("APB 25 ") to account for stock option compensation. APB 25 generally provides that compensation expense is measured at the grant date in the amount of the spread between the option price and the quoted market price of the underlying stock ("intrinsic value"). This compensation expense is then recognized over the period that the employee provides services, generally the vesting period of the option. We discuss why most companies choose to adopt the intrinsic value method rather than use a grantdate valuation for GAAP reporting purposes in section C below.

In short, the appropriate question concerning a particular method of accounting for stock options is whether it recognizes and measures expense in the same way as independent parties would in arm's length dealings. There are at least three accounting methods that need to be considered:

- Intrinsic Value: Spread between option's exercise price and underlying stock's value when the option is granted - consistent with most taxpayers' current practice for purposes of both R\&D cost sharing and U.S. GAAP reporting;
- Grant-date Valuation: Generally, amount determined by an economic model to be the "fair value" of the option when granted - available to some taxpayers by election under the Proposed Regulations and used by small minority of companies for U.S. GAAP reporting; and
- Exercise-date Valuation: Spread between option's exercise price and the stock's value when the option is exercised - consistent with the Proposed Regulations' general rule and largely consistent with U.S. tax accounting principles.

Other methods, such as foreign GAAP, may also be reasonable and consistent with the arm's length standard. In any case, whatever accounting method that a taxpayer adopts and consistently applies for cost sharing purposes should be considered on its own merits. The controlling principle should be consistency with the arm's length standard -
not consistency with GAAP or tax accounting principles. Even if political pressures force U.S. GAAP to change so that expensing of employee stock options is required, arm's length parties would continue to refuse to share or reimburse others' stock options except to the extent they have intrinsic value on the grant date.

## B. Evidence from True Arm's Length Dealings

There is no evidence to suggest that third parties dealing at arm's length agree to share costs that include unmeasurable and unpredictable stock option costs. The IRS has admitted that it has not found any such evidence in the Xilinx litigation. ${ }^{6}$ Moreover, there is strong evidence demonstrating that independent parties actually and actively exclude stock option costs from arm's length arrangements. In the following sections, we discuss well-known evidence from government contracting regulations and introduce compelling new evidence from private sector co-development and joint venture agreements.

## Government Contracting Regulations

The U.S. military contracts with private contractors for billions of dollars worth of research and development services each year. These contracts are governed by the Federal Acquisition Regulation ("FAR"). 48 C.F.R. § 1.101 et seq. Due to the uncertainties involved in contract performance, many military contracts are structured as so-called "cost-reimbursement contracts" See 48 C.F.R. § 16.301-307. For example, many are "cost-plus-incentive-fee contracts" which provide for an initially negotiated fee to be adjusted later by a formula based on the relationship of total allowable costs to total target costs. 48 C.F.R. § 16.304.

In fact, "cost-sharing contracts" are another type of cost-reimbursement contract used in military procurement; the FAR describes these contracts as follows:

[^5](a) Description. A cost-sharing contract is a cost-reimbursement contract in which the contractor receives no fee and is reimbursed only for an agreedupon portion of its allowable costs.
(b) Application. A cost-sharing contract may be used when the contractor agrees to absorb a portion of the costs, in the expectation of substantial compensating benefits.

48 C.F.R. § 16.303. The cost-sharing type of contract is particularly well suited for those contractors that would be retaining title to some of the intangibles developed in the course of the contract. See 48 C.F.R. 27.302(b).

Part 31 of the FAR provides the principles and procedures for all situations where payments may be based on contractor costs, including all types of cost-reimbursement contracts. See 48 C.F.R.§ 31.103. The provisions of the FAR governing accounting for compensation specifically exclude amounts that are "based on changes in prices of corporate securities or corporate security ownership, such as stock options, stock appreciation rights, phantom stock plans, and junior stock certificates." 48 C.F.R. § 31.205-6(i). If this language leaves any doubt, the following subsection removes it by specifying that "any compensation that is calculated, or valued, based on changes in the price of corporate securities is unallowable." 48 C.F.R. § 31.205-6(i)(1). Thus, under this regulation, the U.S. government is not allowed to share or reimburse contractors for their employee stock options based either a grant-date valuation (which is "calculated" based expected stock price changes) or an exercise-date valuation (which is "valued" based on actual stock price changes).

The IRS is well aware of these provisions of the FAR. A Field Service Advisory issued in 2000 discussed them at length and raised the following objections:

The unallowability of such stock option costs under FAR does not negate that stock options are compensation costs, nor suggest that parties at arm's length would ignore the stock option compensation of researchers in cost sharing or services agreements. The reason FAR generally disallows certain stock option compensation is based on administrative concerns that companies could manipulate the time between grant and exercise of the stock options to coincide with a period of major performance of Government cost-type contracts. Opposite administrative concerns are present for tax purposes, namely, that a failure to take account of stock option costs on some reasonable
basis would facilitate an inappropriate manipulation of the income of commonly controlled parties to such arrangements.
FSA 200003010 (citation omitted).
This analysis misses the key point. AeA is troubled by the inconsistency between the FAR provisions and the Proposed Regulations. Indeed, if these regulations are finalized in this form, AeA may well urge that the Office of Federal Procurement Policy to consider making similar revisions to the FAR. However, we do not raise these FAR provisions merely to demonstrate the inconsistency, but rather because they are powerful evidence of actual arm's length dealings. The FAR provisions are significant because they demonstrate that thousands of private companies have entered into costreimbursement contracts with the U.S. military on terms that did not include any compensation for employee stock options.

AeA believes that the FAR evidence is extremely powerful in light of the great number of contracts involved, including - in all likelihood - a number of cost-sharing contracts. Unfortunately, because the actual contracts negotiated under the FAR are highly confidential to the companies involved, we could not review them in greater detail. It is for this reason that we turn, in the next section, to private sector agreements for which additional information is available.

## Private Sector Agreements

Several AeA member companies have reviewed their co-development and joint venture agreements, and have found none which provided any compensation for employee stock options. For those few agreements that were ambiguous on the issue of stock options, the companies investigated the invoices and accounting records relating to the agreements and found that in no case were any costs associated with the value of the stock options charged out. One or more of these member companies would be willing to discuss these agreements with the IRS and Treasury provided they can receive assurances that the information discussed would be kept confidential and their proprietary business information would not be disclosed.

Since the details of member companies' agreements cannot be publicly revealed, we conducted several searches of materials publicly filed with the Securities and Exchange Commission ("SEC"). Again, we found no evidence that either grant-date or exercise-date valuations of stock options were shared or reimbursed in any arm's length co-development or joint venture arrangements. Most of the management discussions and exhibits attached to SEC filings were entirely silent on issue although some explicitly provided that costs would be determined under U.S. GAAP. Since the companies used APB 25 to account for stock options, no amount beyond the intrinsic value of the options on grant date would be shared under such provisions.

In our search of publicly available documents, we came across one arrangement that is particularly illuminating on the GAAP accounting issue: a "Collaboration Agreement" between Amylin Pharmaceuticals Inc. ("Amylin") and Hoescht Marion Roussel Inc. ("HMR") (now known as Aventis Pharma) dated March 31, 1997. ${ }^{7}$ This agreement is illustrative; we are confident that an exhaustive search of SEC materials would uncover many similar examples. Amylin is a small company that conducts proprietary research and development on potential pharmaceutical products. Due to its very small size and limited operations, each of Amylin's third-party agreements is material to its operations and therefore required to be disclosed under SEC rules. Although portions of key agreements have been granted confidential treatment by the SEC, the greater part of Amylin's network of agreements are fully disclosed and provide an unusually detailed view of arm's length co-development arrangements.

Concurrent with the Collaboration Agreement, Amylin and HML entered into a "License and Option Agreement" under which Amylin was granted exclusive worldwide rights to a series of orally active compounds in order to evaluate their ability to improve cardiovascular risk factors associated with atherosclerosis. Under the terms of the License and Option Agreement, Amylin is responsible for conducting the preclinical

[^6]
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evaluation and clinical development of candidate compounds; and HML will have a onetime option, upon completion of Phase II clinical trials, to elect to collaborate with Amylin in the continuing development and commercialization of the compounds in a 50:50 cost-and-profit sharing arrangement.

The Collaboration Agreement only takes effect if and when HML exercises this option. ${ }^{8}$ If HML exercises the option, Amylin will continue to be responsible for developing and registering the product candidates, and HML will be responsible for manufacturing and marketing. Amylin and HML will assume equal responsibility for all past and future research and development, manufacturing, and commercialization expenses and will share equally in any operating profits from commercialization. If HML does not exercise the option, Amylin will remain responsible for all past and future research and development and will retain all development and commercialization rights, and HML will be entitled to a royalty based on any future net sales. In such case, Amylin will be free to collaborate with other companies on the development, manufacture, and commercialization of these compounds.

Section 3.11 of the Collaboration Agreement provides the accounting rules for determining all revenues and expenses in computing the $50: 50$ split of operating profits and losses. While accounting for stock options is not specifically referenced, the agreement contains very detailed provisions regarding the application of U.S. GAAP:

Except as specifically provided in this Agreement, each Party agrees to determine Net Sales, Royalty-Bearing Sales, Allowable Expenses, Research and Development Expenses, Pre-Marketing Expenses and all other costs and expenses hereunder with respect to the Products using its standard accounting procedures, consistent with United States Generally Accepted Accounting Principles, to the extent practical, as if such Products were solely owned products of the Party. The Parties also recognize that such procedures may change from time to time and that any such changes may affect the definition of Net Sales, Royalty-Bearing Sales, Allowable Expenses, Research and Development Expenses, Pre-Marketing Expenses and such other costs and

[^7]$\qquad$


#### Abstract

expenses. The Parties agree that, where such changes are economically material to either Party, adjustments shall be made to compensate the affected Party in order to preserve the same economics as reflected under this Agreement under such Party's accounting procedures in effect as of the date on which the activity in question (for example, Research, Development, marketing or manufacturing) first commences under this Agreement.


Collaboration Agreement, Section 11(b) (emphasis added). The subsection continues by specifying that any change that affects R\&D expenses by $5 \%$ or more will considered "economically material."

Upon close analysis, these detailed provisions have the effect of requiring Amylin to use the intrinsic value method to account for stock options, even if it were to adopt grant-date accounting using Black-Scholes or other valuation models for purposes of U.S. GAAP. Initially, the provision requires Amylin to use "its standard accounting procedures" consistent with U.S. GAAP to account for R\&D costs. In its SEC Form 10K for the year ended December 31, 1997, Amylin disclosed that it had elected to follow APB 25 to account for its employee stock options. ${ }^{9}$ Its most recent Form 10-K confirms that the election to follow APB 25 remains in effect. ${ }^{10}$ Accordingly, the Collaboration Agreement clearly requires Amylin use the intrinsic value method of APB 25 to account for employee stock option cost in its R\&D effort to date.

In the event Amylin changes its accounting procedures in the future and adopts a grant-date valuation method using Black-Scholes or another valuation model (either voluntarily or as required by changes in applicable U.S. GAAP rules), then the provisions regarding "economically material changes" in accounting procedures would come into play. A rough indication of how these provisions would apply can be gleaned from the financial data disclosed in Amylin's financial statement and footnotes, as shown in the following chart:

[^8]| Amylin Pharmaceuticals, Inc. (per Form 10-K406, December 31, 2002) |  |  |  |
| :---: | :---: | :---: | :---: |
| (\$000) | 2001 | 2000 | 1999 |
| Reported Net Loss (using intrinsic value method) | -80,470 | -49,546 | -32,258 |
| Pro Forma Net Loss (using "fair value" method) | -71,972 | -44,043 | -30,899 |
| Pro Forma Stock Option Expense | 8,498 | 5,503 | 1,359 |
| Reported R\&D Expenses | 49,601 | 33,807 | 19,181 |
| Reported General and Administrative Expenses | 20,469 | 10,716 | 7,920 |
| Total Operating Expenses | 70,070 | 44,523 | 27,101 |
| Pro Forma Stock Option Expense / Reported Operating Expenses | 12.1\% | 12.4\% | 5.0\% |

This analysis demonstrates that the percentage change in R\&D expense if the "fair value" method were adopted would significantly exceed the $5 \%$ materiality threshold over the three year period 1999-2000, stabilizing at around $12 \%$. Therefore, section 11(b) of the Collaboration Agreement would require Amylin to make adjustments "to preserve the same economics as reflected" in the initial year of the Agreement. It is important to note that this provision is self-executing - it does not call for re-negotiation of the agreement. Accordingly, the Collaboration Agreement would require Amylin to continue to use the intrinsic value method of APB 25 for purposes of determining the equalization payment it would receive from HML even if it were to change its stock option accounting method for U.S. GAAP reporting.

The degree of comparability between the Amylin-HML Collaboration Agreement and a typical intercompany QCSA is relatively high:

- The intangible property involved is a major component of Amylin's overall business, as is typically the case in a QCSA.
- Because the Collaboration Agreement provides for $50: 50$ sharing of both profits and losses at the operating profit level, it automatically insures that reasonably anticipated benefits are proportionate to the cost sharing ratio.
- Since HML will only exercise its option to enter into the Collaboration Agreement if it makes the assessment that Amylin's improvements to HML's
proprietary compounds make collaboration more valuable than receiving arm's length royalties, there are no significant buy-in issues to cloud the comparison.
- There are no other ancillary transactions, such as equity investments or supply contracts between the parties, that could complicate the comparison. ${ }^{11}$

Thus, for all its complexity, the Collaboration Agreement is very important evidence that parties negotiating a cost-sharing arrangement at arm's length would choose to account for stock options using the intrinsic value method rather than either the grant-date or exercise-date valuation methods of the Proposed Regulations.

## C. Economic Contribution Analysis

To the extent there are any weaknesses in the data on comparable transactions, it is worthwhile to turn to sound economic reasoning for support. The preamble to the Proposed Regulations recognizes the importance of economic analysis, emphasizing that cost sharing agreements must reflect "relative economic contributions" of all participants. However, exercise-date valuation under general rule of Proposed Regulations is not an indicator of relative economic contributions at all, while the grant-date valuation election is little better. Economic theory bolsters the commercial practice evidence, discussed above, in support of the view that no amount beyond the grant-date intrinsic value of employee stock options would be accepted as a cost to be shared or reimbursed by independent parties negotiating at arm's length.

## Defects of Exercise-Date Valuation

Arm's length parties would not agree to use exercise-date valuation for cost sharing purposes because the payments would be dependent on stock market fluctuations that are uncertain in time and amount, not directly related to the joint development activity and entirely out of the control of the paying party. Ease of administration, fairness to

[^9]individual taxpayers and tax incentives for businesses are the reasons exercise date valuation is used for U.S. tax accounting purposes. These reasons are simply inapplicable to arm's length dealings.

Exercise-date valuation would measure compensation by the amount of the spread on the exercise date, and recognize the full amount of a deduction at the same time.
There are many reasons why this approach does not measure economic contributions and would not be considered in arm's length negotiations:

- First, deferring measurement of stock option expense until the exercise date does not provide the level of certainty required by arm's length parties to enter into a long-term arrangement like cost sharing - arm's length parties would not agree to pay such unpredictable amounts subject to volatility of the stock market and influenced by many factors outside their control.
- This exercise-date valuation method would have the effect of each party writing a naked call option on the other party's stock, requiring each to pay off the other without regard to the role of the joint development efforts in the stock's performance - in fact, doing so even in the event that the paying party's business has under-performed and has not realized anticipated benefits from the development program.
- If an employee changes activities (e.g., moves from marketing to research) between grant and exercise dates, the Proposed Regulations' exercise-date method is unable to match stock compensation to the appropriate period and activity.
- Because exercise-date valuation includes any increases in stock value that occurred after vesting, a very large part of the amount can only rightly be considered to reflect the individual employee's subsequent investment decisions.
- The spread-at-exercise value may be extremely large, many orders of magnitude greater than any other conceivable valuation method.

Historically, exercise-date valuation developed in the context of individual income tax disputes and was driven by both administrability and fairness concerns. That is, it was considered unfair to subject the individual employee to tax when he receives stock options, which may have speculative value, but he does not receive any cash with which to pay the tax. As discussed in Section IIA below, the corporate tax deduction is an

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explicit tax incentive to encourage U.S. companies to share the wealth with their employees and encourage risk-taking and entrepreneurship by U.S. workers.

## Defects of Grant-Date Valuation

Using an grant-date valuation model to measure employee stock option expense does not produce an arm's length result either. Economic models (such as BlackScholes) were designed to value short-term options that are actively traded in equity markets. ${ }^{12}$ These valuation models are highly speculative and inaccurate when applied to employee stock options for many reasons, which can largely be separated in two categories: first, many restrictions on their exercise and transfer and, second, their very long term.

Free marketability of stock options is the central and key assumption of the BlackScholes model and related economic valuation models because they are based on the principle of "no-arbitrage" - namely, that there can be no combination of stock positions (e.g., long, short, puts, calls, etc.) that allows some simultaneous purchase of one and sale of another to produce a risk-free profit. Unlike plain-vanilla market-traded options, employee stock options are typically burdened with the many restrictions, including:

- strict prohibitions on sale,
- serious limitations on gift transfer,
- forfeiture if employee loses or leaves job before vesting,
- forced exercise (or forfeiture) if employee leaves job after vesting,
- legal restrictions on dealing in company stock (e.g., insider trading rules), and
- corporate prohibitions on selling company stock short.

Accounting rules governing the use of valuation models for employee stock options under U.S. GAAP (e.g., for footnote disclosures) attempt to account for these restrictions

[^10]in a number of ways; however, none of these adjustments is fundamentally sound as an economic matter, and each introduces a further element of speculation and imprecision:

- While marketable options can be accurately valued based on expected volatility and the risk-free interest rate, the value of non-marketable options would theoretically require knowledge of the employee-optionholder's outlook on the prospects of the stock and his risk prerferences. Because these factors are obviously not readily available and highly speculative, expected volatility and the risk-free interest rate are used instead.
- While volatility is the primary driver of marketable options values to an outside investor or a market maker because of the potential upside benefit is greater, excess volatility actually decreases value to employees due to risk preferences. Accounting standards on how to measure and adjust volatility for employee stock options is lacking; different companies take very different approaches in practice.
- Vesting restrictions reduce value. U.S. GAAP allows the total option expense amount to be reduced by a factor representing the expected employee turnover rate and resulting forfeitures during the vesting period.
- Requirement that employees exercise or forfeit vested options when they leave jobs leads to early exercise, reducing value. Restrictions on transfer and hedging of shares leads to early exercise depending on employee's cash needs. GAAP rules allow the use of the average expected term of employee options rather than their nominal term in an attempt to account for early exercises. However, this is a highly imprecise and unprincipled approach. Among other things, it does not take into accounts that early exercise is more likely if stock value increases rapidly, which further reduces option value.

In addition to these factors, the very long term of employee stock options greatly complicates the valuation exercise. The term of a typical market-traded option is a few months although some are as long as a year or two. By contrast, the typical employee stock option does not even vest for three to four years, but then remains exercisable for five or more years provided the employee remains in his job. The very long term greatly increases the uncertainty of typical volatility measures (short term measures are likely to overstate value) as well as that of other key assumptions (e.g., dividend payout, risk-free interest rate).

All of these are among the reasons that most U.S. companies opposed mandatory expensing of option expense using a grant-date valuation model when U.S. GAAP standards being reconsidered about ten years ago, and have chosen to continue to use the intrinsic value method for financial statement reporting ever since that time.Moreover, the grant of at-the-money employee stock options does not, in any way, reduce corporate cash flow; but merely represents potential dilution of shareholders' ownership in the event employee efforts increase the value of the shares. No independent company would agree to share "costs" based on the value of potential benefits to another company's shareholders.Except to the extent they are "in the money" at grant, AeA believes that stock options are not compensation for past work, but are rather an incentive for future performance. Therefore, AeA concludes that the intrinsic value method of accounting for stock options is most consistent with the business objectives of parties entering into an arm's length cost sharing arrangement.

## II. Anti-Competitive Effects

Due to their inconsistency with the international arm's length standard, the Proposed Regulations can be expected to produce a number of side effects that will damage the competitiveness of U.S. industry and harm the U.S. job market. Many of the largest trading partners of the United States - including Canada, Japan and several European Union countries - appear very unlikely to accept the Proposed Regulations' view of the arm's length standard. We are aware of U.S. companies that have cost sharing arrangements that include participants from each of these countries. Moreover, the negative effects would be magnified if the IRS and Treasury extend the principles of the Proposed Regulations to other areas of transfer pricing, such as intercompany services. We strongly believe it is inadvisable to pursue the Proposed Regulations without first seeking harmony within the international community and among different transfer pricing areas.

## A. Double Taxation of U.S. Companies

Employee stock options play a key role in the U.S. economy, and are particularly important in the high technology sector. Stock options provide fuel that helps make the sector an engine of growth and innovation. Options motivate employees to give peak performances, and allow them to share the rewards if the enterprise is successful.
U.S. tax treatment of stock options reflects Congressional recognition of the many social benefits employee options provide. At the individual tax level, Congress has created favorable tax regimes for incentive stock options and employee stock purchase plans. See I.R.C. §§ 422 \& 423. At the corporate level, Congress provides deductions when employees of U.S. corporate taxpayers have income from disqualifying dispositions of incentive stock options or from exercising non-qualified stock options. See I.R.C. § 83(h). As Senator George Allen stated in recent Senate debate, successfully opposing proposed changes in the tax treatment of employee stock options:

In our effort to reform, we must not enact measures that stifle innovation and endanger the American entrepreneurial spirit. Congress should not harm future opportunities for employees to own a part of their company for whom they work. Unfortunately, the Levin-McCain amendment does just that by unjustifiably upsetting the current tax treatment of stock options. It is unnecessary and unwise to change these particular accounting policies. ${ }^{13}$
The Proposed Regulations would, in many cases, have the effect of denying the tax benefits that Congress sought to provide to companies offering stock options to U.S. employees. The purposes of the stock option deduction are to encourage and reward employee ownership and entrepreneurship within the United States.

Whether a foreign corporation - even a foreign affiliate of a U.S.-based multinational - is entitled to a corporate tax deduction for stock options issued to its

[^11]employees depends on the tax rules of the foreign country where it operates. Clearly, the decision whether to encourage employee stock ownership and entrepreneurship within its borders is appropriately a matter of domestic tax policy for each country. U.S.-based multinationals take the tax policies of each foreign country where they operate into consideration when deciding whether to extend stock option benefits to local employees.

The Proposed Regulations would turn these policy considerations on their head. Because costs charged out to a foreign participant under QCSA reduce tax deductions otherwise available to the U.S. participant, the Proposed Regulations would have the effect of denying part of the deduction for U.S. employee stock options. As a result, U.S. participants will have to consider foreign tax treatment of option-related cost sharing payments before deciding whether to extend stock option benefits to U.S. employees.

AeA is confident that a great many foreign countries will reject the premises and results of the Proposed Regulations, based either on domestic tax rules or their views of the arm's length standard. Many of these countries will disallow a deduction for the portion of a cost sharing payment made by a local company that is attributable to U.S. employee stock options, based on one or more of the following principles:

- The local country does not allow deductions for payments to affiliates that violate the arm's length standard, and agrees with AeA that the evidence establishes that independent parties would not agree to share or reimburse amounts based on a valuation of the other party's at-the-money stock options;
- The local country does not allow deductions that relate to employee stock options in any form whatsoever;
- The local country does not recognize any "cost" for employee stock options unless the issuing company acquires the stock or options on the open market; or
- The local country does not allow deductions for stock options granted to employees not subject to the local individual income tax, and would not allow such deductions indirectly through a cost sharing payment either.

If the foreign country disallows the deduction for any of these reasons, the U.S.-based multinational group will not get any deduction whatsoever for stock options issued to U.S. employees, contrary to Congressional intent. Unless the foreign Competent October 28, 2002

Authority can be convinced that the cost sharing payment is consistent with the arm's length standard in spite of the country's tax rules on stock option deductions, then there will be no relief for the resulting double taxation.

Conversely, the Proposed Regulations may create an opportunity for foreign-based multinationals to obtain a U.S. tax deduction for stock options issued to their employees that was not previously available under their home country tax laws. Where a foreign parent company has a QCSA with its U.S. subsidiary and performs most of the R\&D in the parent company's country, the effect of including stock option costs in the cost sharing pool is to increase in U.S. deductible expenses. If the Proposed Regulation is finalized, this unintended side effect would not only deprive the U.S. Treasury of tax receipts, but also provide the same tax incentives intended to encourage U.S. employee stock ownership to foreign QCSA participants. Stock options are becoming increasingly popular internationally, and many foreign groups (particularly, European-based groups) with multiple R\&D centers already use cost sharing arrangements to manage their intangible property. These trends may accelerate if companies decide to take advantage of the opportunities created by the Proposed Regulations. As previously noted, the double-taxation effect would be greatly magnified if the IRS and Treasury were to extend the principles of the Proposed Regulations to other areas of transfer pricing besides cost sharing, such as intercompany service charges. If, as seems likely, several of our largest trading partners, such as Canada and Japan, soundly reject the principles of the Proposed Regulations in all transfer pricing areas, the resulting increase in the tax burden on U.S. companies could be truly enormous.

## B. Impact on U.S. Job Market

It is significant to note that the Proposed Regulations would only provide unwarranted benefits to foreign companies to the extent they perform research and development or other stock-compensated activities outside of the United States. By the same token, the Proposed Regulations would also create a powerful incentive for U.S. companies to move key research jobs offshore.

An unexpected effect of the Proposed Regulations may well be to encourage U.S. multinationals to move R\&D activities out of the United States and to replace U.S. personnel with foreign nationals. With the rapid growth of well-educated engineers and other skilled professionals in places like India and China, this possible effect cannot be lightly dismissed.

## C. Secondary Effects on U.S. Industry

Some U.S. high-tech companies would find the treatment of stock options for cost sharing urged the Proposed Regulations to be so onerous that they would discontinue offering options to all but the most senior executives. Others would become so embroiled in international tax disputes due to new uncertainty in cost sharing that they would find their businesses profoundly disrupted. The negative impact on employee morale and business operations would severely damage the international competitiveness of U.S. industry in general, and AeA member companies disproportionately.

The high technology sector leads U.S. industries in providing stock options to the broadest base of rank-and-file employees. In fact, in August 2002, AeA released its own survey of over 525 public companies that found that $84 \%$ of high-tech workers in public companies receive stock options. As a result of the high speed of innovation and change, the high technology sector also boasts many of the most volatile issues on the stock market. Furthermore, due to the global reach of technology and the high level of international merger and acquisition activity in the sector, research and development cost sharing plays a particularly important role in the business strategies of high technology companies.

As a result of this combination of characteristics, the Proposed Regulations' position on stock options and cost sharing would have a disproportionately harsh and negative effect on AeA member companies and others in the high technology sector. Under the Proposed Regulations' approach, stock market volatility can result in cost sharing charges that are both very large and extremely unpredictable. To manage the potential exposure, some AeA member companies may find it necessary to discontinue
offering stock options to the broadest possible employee base, leaving options available only to the most senior executives who have the bargaining power to demand them.

Many other AeA member companies value broad-based stock option programs too highly to allow them to be undermined by adverse tax effects. These companies would have no choice but to dedicate a larger share of their budgets, time and energy to resolving international tax disputes.

## D. Other Effects on U.S. Treasury

Lastly, the Proposed Regulations may adversely impact the Treasury in other, unexpected ways. For one thing, the Treasury is likely to find extra resources will be needed to deal with the international tax controversies generated. In addition, Treasury should expect to find that private contractors will have a strong incentive and rationale to request changes in government contracting regulations (i.e., the FAR) to allow them to charge out employee stock options in military procurement contracts. If the U.S. government truly believes parties at arm's length compensate others for their employee stock options, AeA believes that the government should do so itself. It is altogether possible that, by extending new tax deductions to foreign corporations, and by causing the government to incur new charges on procurement contracts, the Proposed Regulations will have a negative impact on the U.S. Treasury on net.

## III. Conclusion and Recommendations

The centrality of the arm's length standard to the international tax policy of the United States should be clear from its presence in every bilateral income tax treaty as well as the major U.S. role in formulating the OECD Guidelines. The White Paper draws precisely this conclusion:

It is equally clear as a policy matter that, in the interest of avoiding extreme positions by other jurisdictions and minimizing the incidence of disputes over primary taxing jurisdiction in international transactions, the United States should continue to adhere to the arm's length standard. If a U.S. policy goal is to discourage other countries from taking extreme positions to the detriment of U.S. businesses, then it is incumbent on those administering and
adjudicating the U.S. tax system to avoid extreme positions as well. In order to minimize the incidence of double taxation and international tax disputes, it is crucial that all countries strive toward a universal application of arm's length principles.
White Paper, Chapter 7, section B (footnotes omitted).
The approach to stock option accounting advanced by the Proposed Regulations is the sort of "extreme position" that ought to be avoided. If all countries required taxpayers to apply local tax rules to transfer pricing analysis, double taxation and international disputes would be the rule rather than the exception. Withdrawal of the Proposed Regulations is therefore consistent with the international tax policy of the United States.

Strengthening the arm's length standard must remain an tax policy priority if U.S. companies are to be competitive in the global economy. Only if there is broad international consensus on arm's length principles, including the measurement of costs under cost sharing arrangements, can U.S. companies achieve parity with foreign competitors and avoid debilitating disputes with foreign tax authorities. Imposing U.S. tax accounting rules for cost sharing would undercut this worthy goal.

Accordingly, the AeA strongly urges the Treasury to withdraw these Proposed Regulations and requests to testify at the public hearing scheduled for November 20, 2002.

Respectfully Re-submitted,

Dated: October 31, 2002
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October 28, 2002

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## INTRODUCTION

AeA submits these comments on behalf of itself and its member companies in response to the request of the Treasury and the Internal Revenue Service (IRS) in Notice of Proposed Rulemaking REG106359-02 for comments on proposed regulations (Proposed Regulations) relating to the treatment of stock-based compensation for purposes of qualified cost sharing arrangements (QCSAs).

Advancing the business of technology, AeA (the American Electronics Association) is the nation's largest high-tech trade association. AeA has more than 3,000 member companies that span the high-technology spectrum, from software, semiconductors and computers to Internet technology, advanced electronics and telecommunications systems and services. AeA has been the accepted voice of the U.S. technology community since 1943.

The overwhelming majority of AeA's member companies issue non-statutory stock options to their employees. The high-tech industry was the first in the U.S. economy to distribute stock options to its entire workforce, from entry-level positions up to top executives. Stock options help employers attract and retain qualified workers by giving them a financial stake in the future of the companies for which they work. It can rightly be said that stock options are a key engine of growth and innovation in the U.S. economy.

Many AeA member companies also rely on QCSAs to facilitate the development of their intangible property. The high-tech industry is notable for its global scale, where even the newest and smallest players face competition from companies around the world. In response, most high-tech companies have established research, manufacturing and distribution operations in several countries, at times as a result of cross-border mergers or acquisitions. These companies have found cost sharing to be an indispensable tool for managing global intangible property rights in a way that has, until the current conflict with the IRS over stock options, avoided contentious and costly disputes with tax authorities over arm's length licenses and royalties.

The Proposed Regulations would require companies to increase the pool of intangible development costs to be shared under their QCSAs by an amount based on the valuation of employee stock options under one of two methods. As a general rule, companies would use a valuation method based on the spread at exercise ("exercise-date valuation'). Certain public companies listed on a U.S. stock exchange would be able to elect to apply an economic model to value the options when granted ("grant-date valuation") in conformity with the alternative valuation allowed by U.S. generally accepted accounting principles ("U.S. GAAP"), which is typically reported in companies' financial statement footnotes.

The IRS has raised the stock option issue related to QCSAs many times over the past decade in litigation, letter rulings and other forums. The IRS position has changed significantly from time to time, shifting between various grant-date and valuation-date methodologies. Most recently, the IRS has made a motion for summary judgment based on a position similar in some respects to the Proposed Regulations' exercise-date method in Tax Court litigation with Xilinx Inc. (docket \#4142-01). In the interest of full disclosure, we note that Xilinx is a member of the AeA and AeA has submitted an amicus brief to the U.S. Tax Court on this issue in connection with the Xilinx litigation.

AeA commends the IRS and Treasury for turning at last to the rigorous procedures of notice-and-comment rulemaking in its attempt to resolve this important issue.

However, AeA believes that the approach of the Proposed Regulations is fundamentally flawed because it violates the international arm's length standard, which is the very foundation of transfer pricing law and policy. As a result of this defect, a number of anti-competitive effects on U.S. industry can be foreseen if the regulations were to be finalized in the proposed form.

## SUMMARY OF COMMENTS

## Arm's Length Standard <br> Although the Proposed Regulations purport to be consistent with the arm's length standard, it is clear to AeA that they do not produce an arm's length result. The

central inquiry should be what costs independent parties would share under the same circumstances, and how they would measure and share these costs. Actual commercial dealings and sound economic reasoning both demonstrate that independent parties would not share amounts based on a valuation of employee stock options under either of the allowed methods.

Evidence from actual commercial dealings shows conclusively that independent parties do not agree to share or reimburse any amount for another party's employee stock options beyond the amount such options are "in the money" when granted (known as "intrinsic value"). A stock option's intrinsic value, which is the difference between the option's exercise price and the market price of the underlying stock at the time of grant, is the measure of compensation expense related to employee stock options that is currently adopted by most companies for purposes of U.S. GAAP. This treatment of stock options is demonstrated in a wide variety of contracts between unrelated parties and is, in fact, compelled by Federal government contracting regulations for transactions between the U.S. military and private contractors amounting to billions of dollars annually.

Sound economic reasoning also demonstrates that neither exercise-date nor grantdate valuation of employee stock options is arm's length. Independent parties would not agree to use exercise-date valuation for cost sharing purposes because the payments would be dependent on stock market fluctuations that are uncertain in time and amount, not directly related to the joint development activity and entirely out of the control of the paying party. Independent parties would not agree to use grant-date valuation either because the economic models (such as Black-Scholes) designed to value market traded options are highly speculative and inaccurate when applied to employee stock options due to their very long terms and their strict vesting and exercise restrictions. Moreover, the grant of at-the-money employee stock options does not, in any way, reduce corporate cash flow; but merely represents potential dilution of shareholders' ownership in the event employee efforts increase the value of the shares. No independent company would
agree to share "costs" based on the value of potential benefits to another company's shareholders.

## Anti-Competitive Effects

Due to their inconsistency with the arm's length standard, the Proposed Regulations would have a number of anti-competitive effects on U.S. industry. Many U.S. multinationals will suffer double taxation when foreign tax authorities disallow deductions for cost sharing payments paid by the local subsidiary to its U.S. parent to the extent the payments are based on stock option valuations. Conversely, the Proposed Regulations would create an opportunity for some foreign multinationals to receive U.S. tax deductions for stock options that would not otherwise be available to them under their home country law. Both the double-taxation effect and the new foreign benefit would be greatly magnified if the IRS and Treasury extend the principles of the Proposed Regulations to other areas of transfer pricing besides cost sharing.

It is significant to note that the Proposed Regulations would only provide unwarranted benefits to foreign companies to the extent they perform research and development or other stock-compensated activities outside of the United States. By the same token, the Proposed Regulations would also create a powerful incentive for U.S. companies to move key research jobs offshore.

Secondary effects on U.S. industry can also be foreseen. Some U.S. high-tech companies would find the treatment of stock options for cost sharing required by the Proposed Regulations to be so onerous that they would discontinue offering options to all but the most senior executives. Others would become so embroiled in international tax disputes due to new uncertainty in cost sharing that they would find their businesses seriously disrupted. The negative impact on employee morale and business operations would severely damage the international competitiveness of U.S. industry in general, and AeA member companies disproportionately.

Lastly, the Proposed Regulations may adversely impact the Treasury in other, unexpected ways. For one thing, the Treasury is likely to find extra resources will be

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needed to deal with the international tax controversies generated. In addition, Treasury should expect to find that private contractors will have a strong incentive and rationale to request changes in government contracting regulations to allow them to charge out employee stock options in military procurement contracts - for, if the U.S. government truly believes parties at arm's length compensate others for their employee stock options, should it not do so itself?

In summary, we believe the Proposed Regulations should be withdrawn both because they contravene the arm's length standard, which is central to U.S. international tax policy, and because their direct and indirect effects will undermine the competitiveness of U.S. industry.

## COMMENTS

## I. Inconsistency with Arm's Length Standard

The arm's length standard is the foundation and guiding principle for all transfer pricing matters worldwide. In the United States, the arm's length standard has governed whether transactions between related parties "clearly reflect income" since the first set of Treasury Regulations for the U.S. income tax were promulgated in 1934. The arm's length standard has been re-affirmed in every revision of the regulations since that time, has been extensively debated and affirmed in the U.S. Congress, and has been upheld and extended by numerous court decisions.

Internationally, the arm's length standard has been broadly adopted in the domestic laws of nearly every country worldwide, is embedded in each and every bilateral tax treaty that the United States has concluded with other countries, and is continuously studied and refined in Guidelines issued by the Organization for Economic Cooperation and Development ("OECD Guidelines"). ${ }^{1}$ The OECD Guidelines make clear that cost sharing - or "cost contribution arrangements" ("CCA") to use OECD terminology - are no exception to the arm's length standard:

For the conditions of a CCA to satisfy the arm's length principle, a participant's contributions must be consistent with what an independent enterprise would have agreed to contribute under comparable circumstances given the benefits it reasonably expects to derive from the arrangement.

OECD Guidelines, para. 8.8.
To the credit of the IRS and Treasury, the Proposed Regulations recognize the centrality of arm's length standard. Proposed section 1.482-7(a)(3) explicitly refers to the rule of the existing Treasury Regulations providing that the arm's length standard applies

[^12]AeA - Comments on Proposed Regulations on Stock Options and Cost Sharing October 28, 2002

"in every case," ${ }^{2}$ but goes on to provide that the results of a QCSA will not be considered to be arm's length unless costs are determined and shared in the way it requires. As a result, this apparent affirmation of the arm's length standard amounts to mere lip service to the extent the requirements of the Proposed Regulation deviate from the arm's length standard.

Under international principles, the IRS and Treasury cannot simply declare what is, and is not, arm's length by fiat. As the above quotation from the OECD Guidelines makes clear, the central inquiry must be what costs independent parties would share under the same circumstances, and how such parties would measure and share these costs. In this inquiry, evidence of actual arm's length dealings is the most significant and persuasive if it is available and reliable. In the absence of extrinsic evidence, it is necessary to turn to sound economic reasoning regarding the likely behavior of independent parties under the hypothesized circumstances. In the following sections, we will demonstrate that the approach of the Proposed Regulations is neither supported by the available evidence nor consistent with sound economic reasoning.

## A. History of Cost Sharing/Stock Option Issue

## Brief History

A brief history is useful to provide context and to help frame the issue. Both independent parties and affiliated groups have relied on co-development or cost sharing agreements as a means to jointly develop intangible property for separate use or exploitation. Cost sharing is a relatively simple and effective way to manage intangible property rights and is an effective alternative for difficult and contentious cross-license and royalty arrangements that would otherwise be required. Cost sharing has been explicitly recognized by Treasury Regulations since 1968. See provisions that are now preserved at Treas. Reg. § 1.482-2A(d)(4).

[^13]By 1986, Congress became concerned that U.S. companies were taking advantage of the difficulties of finding comparable licenses to systematically understate royalties received from related parties. In order to give the IRS additional tools to combat perceived abuses, Congress amended section 482 to require that consideration for intangible property transferred in a controlled transaction be commensurate with the income attributable to the intangible. Tax Reform Act of 1986, Public Law 99-514. Congress made clear that the commensurate with income standard was meant to supplement the arm's length standard, not replace it.

Legislative history indicates that Congress recognized that cost sharing was a viable alternative to licensing that should be simpler and less contentious, and so did not intend to preclude the use of cost sharing among related parties provided the cost sharing allocation "reasonably reflect the actual economic activity undertaken by each [party]" and each party is "expected to bear its portion of all research and development costs. . . ." H.R. Rep. No. 99-841, at II-638 (1986) (emphasis added).

The final cost sharing regulations, promulgated in 1995, addressed these Congressional concerns by requiring that the participants share "the costs of development of one or more intangibles in proportion to their shares of reasonably anticipated
benefits from their individual exploitation of the interests in the intangibles assigned to them under the arrangement," and specifying that it is necessary for the parties to share "all costs ... related to the intangible development area." Treas. Reg. § 1.482-7(a)(1) \& (d)(1) (emphasis added).

AeA believes that the existing regulations are consistent with the arm's length standard and appropriately address Congress' "commensurate with income" concerns. AeA does not dispute that the "reasonably anticipated benefits" formulation is consistent with the arm's length standard. Rather, the dispute centers around whether at-the-money employee stock options give rise to any additional compensation that is related to the intangible development area and, if so, how to measure and account for such additional compensation. Until now, the regulations have not specifically addressed the issue of employee stock options, but have provided general guidance suggesting that U.S. GAAP,
applied consistently, may be used to measure revenues and expenses. See Treas. Reg. §§ 1.482-7(i)

## IRS and Taxpayer Positions

IRS positions have widely diverged from time to time. Non-binding written guidance has recognized that, in the absence of specific regulations, "any reasonable method" of accounting for employee stock options should be allowed as long as it is consistently applied. ${ }^{3}$ IRS litigating positions have been roughly consistent with one or the other of the two methods allowed by the Proposed Regulations. For example, in its litigation with Seagate Technology, Inc., the IRS ultimately relied exclusively on a grantdate valuation theory to defend against the taxpayer's motion for summary judgment. ${ }^{4}$ After settling Seagate, the IRS has again reversed course in its current litigation with Xilinx, Inc., contending now that its exercise-date theory warrants summary judgment. ${ }^{5}$

By contrast, taxpayers have, for the most part, taken a single, consistent position on the stock option issue. Taxpayers have consistently concluded that there should not be an inclusion of any additional amount in the $\boldsymbol{R \& D}$ cost pool to account for employee stock options except to the extent the options were in-the-money on the grant date. Two mutually reinforcing principles are the foundation of the taxpayers' position: first, taxpayers believe that independent parties negotiating at arm's length would not agree to share or reimburse amounts based on the other party's stock options; and, second, this treatment of at-the-money options is consistent with the accounting method that most

[^14]companies have adopted for U.S. GAAP and believe to most accurately reflect their true financial condition.

This second principle deserves some elaboration. Most U.S. taxpayers account for stock options for cost sharing in precisely the same way they account for them in their audited financial statements, electing to apply the rules of Accounting Principles Board Opinion No. 25 ("APB 25") to account for stock option compensation. APB 25 generally provides that compensation expense is measured at the grant date in the amount of the spread between the option price and the quoted market price of the underlying stock ("intrinsic value"). This compensation expense is then recognized over the period that the employee provides services, generally the vesting period of the option. We discuss why most companies choose to adopt the intrinsic value method rather than use a grantdate valuation for GAAP reporting purposes in section C below.

In short, the appropriate question concerning a particular method of accounting for stock options is whether it recognizes and measures expense in the same way as independent parties would in arm's length dealings. There are at least three accounting methods that need to be considered:

- Intrinsic Value: Spread between option's exercise price and underlying stock's value when the option is granted - consistent with most taxpayers' current practice for purposes of both R\&D cost sharing and U.S. GAAP reporting;
- Grant-date Valuation: Generally, amount determined by an economic model to be the "fair value" of the option when granted - available to some taxpayers by election under the Proposed Regulations and used by small minority of companies for U.S. GAAP reporting; and
- Exercise-date Valuation: Spread between option's exercise price and the stock's value when the option is exercised - consistent with the Proposed Regulations' general rule and largely consistent with U.S. tax accounting principles.

Other methods, such as foreign GAAP, may also be reasonable and consistent with the arm's length standard. In any case, whatever accounting method that a taxpayer adopts and consistently applies for cost sharing purposes should be considered on its own merits. The controlling principle should be consistency with the arm's length standard -
not consistency with GAAP or tax accounting principles. Even if political pressures force U.S. GAAP to change so that expensing of employee stock options is required, arm's length parties would continue to refuse to share or reimburse others' stock options except to the extent they have intrinsic value on the grant date.

## B. Evidence from True Arm's Length Dealings

There is no evidence to suggest that third parties dealing at arm's length agree to share costs that include unmeasurable and unpredictable stock option costs. The IRS has admitted that it has not found any such evidence in the Xilinx litigation. ${ }^{6}$ Moreover, there is strong evidence demonstrating that independent parties actually and actively exclude stock option costs from arm's length arrangements. In the following sections, we discuss well-known evidence from government contracting regulations and introduce compelling new evidence from private sector co-development and joint venture agreements.

## Government Contracting Requlations

The U.S. military contracts with private contractors for billions of dollars worth of research and development services each year. These contracts are governed by the Federal Acquisition Regulation ("FAR"). 48 C.F.R. § 1.101 et seq. Due to the uncertainties involved in contract performance, many military contracts are structured as so-called "cost-reimbursement contracts" See 48 C.F.R. § 16.301-307. For example, many are "cost-plus-incentive-fee contracts" which provide for an initially negotiated fee to be adjusted later by a formula based on the relationship of total allowable costs to total target costs. 48 C.F.R. § 16.304.

In fact, "cost-sharing contracts" are another type of cost-reimbursement contract used in military procurement; the FAR describes these contracts as follows:

[^15](a) Description. A cost-sharing contract is a cost-reimbursement contract in which the contractor receives no fee and is reimbursed only for an agreedupon portion of its allowable costs.
(b) Application. A cost-sharing contract may be used when the contractor agrees to absorb a portion of the costs, in the expectation of substantial compensating benefits.

48 C.F.R. § 16.303. The cost-sharing type of contract is particularly well suited for those contractors that would be retaining title to some of the intangibles developed in the course of the contract. See 48 C.F.R. 27.302(b).

Part 31 of the FAR provides the principles and procedures for all situations where payments may be based on contractor costs, including all types of cost-reimbursement contracts. See 48 C.F.R.§ 31.103. The provisions of the FAR governing accounting for compensation specifically exclude amounts that are "based on changes in prices of corporate securities or corporate security ownership, such as stock options, stock appreciation rights, phantom stock plans, and junior stock certificates." 48 C.F.R. § 31.205-6(i). If this language leaves any doubt, the following subsection removes it by specifying that "any compensation that is calculated, or valued, based on changes in the price of corporate securities is unallowable." 48 C.F.R. § 31.205-6(i)(1). Thus, under this regulation, the U.S. government is not allowed to share or reimburse contractors for their employee stock options based either a grant-date valuation (which is "calculated" based expected stock price changes) or an exercise-date valuation (which is "valued" based on actual stock price changes).

The IRS is well aware of these provisions of the FAR. A Field Service Advisory issued in 2000 discussed them at length and raised the following objections:

The unallowability of such stock option costs under FAR does not negate that stock options are compensation costs, nor suggest that parties at arm's length would ignore the stock option compensation of researchers in cost sharing or services agreements. The reason FAR generally disallows certain stock option compensation is based on administrative concerns that companies could manipulate the time between grant and exercise of the stock options to coincide with a period of major performance of Government cost-type contracts. Opposite administrative concerns are present for tax purposes, namely, that a failure to take account of stock option costs on some reasonable
basis would facilitate an inappropriate manipulation of the income of commonly controlled parties to such arrangements.

FSA 200003010 (citation omitted).
This analysis misses the key point. AeA is troubled by the inconsistency between the FAR provisions and the Proposed Regulations. Indeed, if these regulations are finalized in this form, AeA may well urge that the Office of Federal Procurement Policy to consider making similar revisions to the FAR. However, we do not raise these FAR provisions merely to demonstrate the inconsistency, but rather because they are powerful evidence of actual arm's length dealings. The FAR provisions are significant because they demonstrate that thousands of private companies have entered into costreimbursement contracts with the U.S. military on terms that did not include any compensation for employee stock options.

AeA believes that the FAR evidence is extremely powerful in light of the great number of contracts involved, including - in all likelihood - a number of cost-sharing contracts. Unfortunately, because the actual contracts negotiated under the FAR are highly confidential to the companies involved, we could not review them in greater detail. It is for this reason that we turn, in the next section, to private sector agreements for which additional information is available.

## Private Sector Agreements

Several AeA member companies have reviewed their co-development and joint venture agreements, and have found none which provided any compensation for employee stock options. For those few agreements that were ambiguous on the issue of stock options, the companies investigated the invoices and accounting records relating to the agreements and found that in no case were any costs associated with the value of the stock options charged out. One or more of these member companies would be willing to discuss these agreements with the IRS and Treasury provided they can receive assurances that the information discussed would be kept confidential and their proprietary business information would not be disclosed.

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Since the details of member companies' agreements cannot be publicly revealed, we conducted several searches of materials publicly filed with the Securities and Exchange Commission ("SEC"). Again, we found no evidence that either grant-date or exercise-date valuations of stock options were shared or reimbursed in any arm's length co-development or joint venture arrangements. Most of the management discussions and exhibits attached to SEC filings were entirely silent on issue although some explicitly provided that costs would be determined under U.S. GAAP. Since the companies used APB 25 to account for stock options, no amount beyond the intrinsic value of the options on grant date would be shared under such provisions.

In our search of publicly available documents, we came across one arrangement that is particularly illuminating on the GAAP accounting issue: a "Collaboration Agreement" between Amylin Pharmaceuticals Inc. ("Amylin") and Hoescht Marion Roussel Inc. ("HMR") (now known as Aventis Pharma) dated March 31, 1997.This agreement is illustrative; we are confident that an exhaustive search of SEC materials would uncover many similar examples. Amylin is a small company that conducts proprietary research and development on potential pharmaceutical products. Due to its very small size and limited operations, each of Amylin's third-party agreements is material to its operations and therefore required to be disclosed under SEC rules. Although portions of key agreements have been granted confidential treatment by the SEC, the greater part of Amylin's network of agreements are fully disclosed and provide an unusually detailed view of arm's length co-development arrangements.

Concurrent with the Collaboration Agreement, Amylin and HML entered into a "License and Option Agreement" under which Amylin was granted exclusive worldwide rights to a series of orally active compounds in order to evaluate their ability to improve cardiovascular risk factors associated with atherosclerosis. Under the terms of the License and Option Agreement, Amylin is responsible for conducting the preclinical

[^16]
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evaluation and clinical development of candidate compounds; and HML will have a onetime option, upon completion of Phase II clinical trials, to elect to collaborate with Amylin in the continuing development and commercialization of the compounds in a 50:50 cost-and-profit sharing arrangement.

The Collaboration Agreement only takes effect if and when HML exercises this option. ${ }^{8}$ If HML exercises the option, Amylin will continue to be responsible for developing and registering the product candidates, and HML will be responsible for manufacturing and marketing. Amylin and HML will assume equal responsibility for all past and future research and development, manufacturing, and commercialization expenses and will share equally in any operating profits from commercialization. If HML does not exercise the option, Amylin will remain responsible for all past and future research and development and will retain all development and commercialization rights, and HML will be entitled to a royalty based on any future net sales. In such case, Amylin will be free to collaborate with other companies on the development, manufacture, and commercialization of these compounds.

Section 3.11 of the Collaboration Agreement provides the accounting rules for determining all revenues and expenses in computing the $50: 50$ split of operating profits and losses. While accounting for stock options is not specifically referenced, the agreement contains very detailed provisions regarding the application of U.S. GAAP:

Except as specifically provided in this Agreement, each Party agrees to determine Net Sales, Royalty-Bearing Sales, Allowable Expenses, Research and Development Expenses, Pre-Marketing Expenses and all other costs and expenses hereunder with respect to the Products using its standard accounting procedures, consistent with United States Generally Accepted Accounting Principles, to the extent practical, as if such Products were solely owned products of the Party. The Parties also recognize that such procedures may change from time to time and that any such changes may affect the definition of Net Sales, Royalty-Bearing Sales, Allowable Expenses, Research and Development Expenses, Pre-Marketing Expenses and such other costs and

[^17]expenses. The Parties agree that, where such changes are economically material to either Party, adjustments shall be made to compensate the affected Party in order to preserve the same economics as reflected under this Agreement under such Party's accounting procedures in effect as of the date on which the activity in question (for example, Research, Development, marketing or manufacturing) first commences under this Agreement.

Collaboration Agreement, Section 11(b) (emphasis added). The subsection continues by specifying that any change that affects R\&D expenses by $5 \%$ or more will considered "economically material."

Upon close analysis, these detailed provisions have the effect of requiring Amylin to use the intrinsic value method to account for stock options, even if it were to adopt grant-date accounting using Black-Scholes or other valuation models for purposes of U.S. GAAP. Initially, the provision requires Amylin to use "its standard accounting procedures" consistent with U.S. GAAP to account for R\&D costs. In its SEC Form 10K for the year ended December 31, 1997, Amylin disclosed that it had elected to follow APB 25 to account for its employee stock options. ${ }^{9}$ Its most recent Form 10-K confirms that the election to follow APB 25 remains in effect. ${ }^{10}$ Accordingly, the Collaboration Agreement clearly requires Amylin use the intrinsic value method of APB 25 to account for employee stock option cost in its R\&D effort to date.

In the event Amylin changes its accounting procedures in the future and adopts a grant-date valuation method using Black-Scholes or another valuation model (either voluntarily or as required by changes in applicable U.S. GAAP rules), then the provisions regarding "economically material changes" in accounting procedures would come into play. A rough indication of how these provisions would apply can be gleaned from the financial data disclosed in Amylin's financial statement and footnotes, as shown in the following chart:

[^18]| Amylin Pharmaceuticals, Inc. (per Form 10-K406, December 31, 2002) |  |  |  |
| :---: | :---: | :---: | :---: |
| (\$000) | 2001 | 2000 | 1999 |
| Reported Net Loss (using intrinsic value method) | -80,470 | -49,546 | -32,258 |
| Pro Forma Net Loss (using "fair value" method) | -71,972 | -44,043 | -30,899 |
| Pro Forma Stock Option Expense | 8,498 | 5,503 | 1,359 |
| Reported R\&D Expenses | 49,601 | 33,807 | 19,181 |
| Reported General and Administrative Expenses | 20,469 | 10,716 | 7,920 |
| Total Operating Expenses | 70,070 | 44,523 | 27,101 |
| Pro Forma Stock Option Expense / Reported Operating Expenses | 12.1\% | 12.4\% | 5.0\% |

This analysis demonstrates that the percentage change in R\&D expense if the "fair value" method were adopted would significantly exceed the $5 \%$ materiality threshold over the three year period 1999-2000, stabilizing at around $12 \%$. Therefore, section 11(b) of the Collaboration Agreement would require Amylin to make adjustments "to preserve the same economics as reflected" in the initial year of the Agreement. It is important to note that this provision is self-executing - it does not call for re-negotiation of the agreement. Accordingly, the Collaboration Agreement would require Amylin to continue to use the intrinsic value method of APB 25 for purposes of determining the equalization payment it would receive from HML even if it were to change its stock option accounting method for U.S. GAAP reporting.

The degree of comparability between the Amylin-HML Collaboration Agreement and a typical intercompany QCSA is relatively high:

- The intangible property involved is a major component of Amylin's overall business, as is typically the case in a QCSA.
- Because the Collaboration Agreement provides for $50: 50$ sharing of both profits and losses at the operating profit level, it automatically insures that reasonably anticipated benefits are proportionate to the cost sharing ratio.
- Since HML will only exercise its option to enter into the Collaboration Agreement if it makes the assessment that Amylin's improvements to HML's
proprietary compounds make collaboration more valuable than receiving arm's length royalties, there are no significant buy-in issues to cloud the comparison.
- There are no other ancillary transactions, such as equity investments or supply contracts between the parties, that could complicate the comparison. ${ }^{11}$

Thus, for all its complexity, the Collaboration Agreement is very important evidence that parties negotiating a cost-sharing arrangement at arm's length would choose to account for stock options using the intrinsic value method rather than either the grant-date or exercise-date valuation methods of the Proposed Regulations.

## C. Economic Contribution Analysis

To the extent there are any weaknesses in the data on comparable transactions, it is worthwhile to turn to sound economic reasoning for support. The preamble to the Proposed Regulations recognizes the importance of economic analysis, emphasizing that cost sharing agreements must reflect "relative economic contributions" of all participants. However, exercise-date valuation under general rule of Proposed Regulations is not an indicator of relative economic contributions at all, while the grant-date valuation election is little better. Economic theory bolsters the commercial practice evidence, discussed above, in support of the view that no amount beyond the grant-date intrinsic value of employee stock options would be accepted as a cost to be shared or reimbursed by independent parties negotiating at arm's length.

## Defects of Exercise-Date Valuation

Arm's length parties would not agree to use exercise-date valuation for cost sharing purposes because the payments would be dependent on stock market fluctuations that are uncertain in time and amount, not directly related to the joint development activity and entirely out of the control of the paying party. Ease of administration, fairness to

[^19]individual taxpayers and tax incentives for businesses are the reasons exercise date valuation is used for U.S. tax accounting purposes. These reasons are simply inapplicable to arm's length dealings.

Exercise-date valuation would measure compensation by the amount of the spread on the exercise date, and recognize the full amount of a deduction at the same time.

## There are many reasons why this approach does not measure economic contributions and would not be considered in arm's length negotiations:

- First, deferring measurement of stock option expense until the exercise date does not provide the level of certainty required by arm's length parties to enter into a long-term arrangement like cost sharing - arm's length parties would not agree to pay such unpredictable amounts subject to volatility of the stock market and influenced by many factors outside their control.
- This exercise-date valuation method would have the effect of each party writing a naked call option on the other party's stock, requiring each to pay off the other without regard to the role of the joint development efforts in the stock's performance - in fact, doing so even in the event that the paying party's business has under-performed and has not realized anticipated benefits from the development program.
- If an employee changes activities (e.g., moves from marketing to research) between grant and exercise dates, the Proposed Regulations' exercise-date method is unable to match stock compensation to the appropriate period and activity.
- Because exercise-date valuation includes any increases in stock value that occurred after vesting, a very large part of the amount can only rightly be considered to reflect the individual employee's subsequent investment decisions.
- The spread-at-exercise value may be extremely large, many orders of magnitude greater than any other conceivable valuation method.

Historically, exercise-date valuation developed in the context of individual income tax disputes and was driven by both administrability and fairness concerns. That is, it was considered unfair to subject the individual employee to tax when he receives stock options, which may have speculative value, but he does not receive any cash with which to pay the tax. As discussed in Section IIA below, the corporate tax deduction is an
explicit tax incentive to encourage U.S. companies to share the wealth with their employees and encourage risk-taking and entrepreneurship by U.S. workers.

## Defects of Grant-Date Valuation

Using an grant-date valuation model to measure employee stock option expense does not produce an arm's length result either. Economic models (such as BlackScholes) were designed to value short-term options that are actively traded in equity markets. ${ }^{12}$ These valuation models are highly speculative and inaccurate when applied to employee stock options for many reasons, which can largely be separated in two categories: first, many restrictions on their exercise and transfer and, second, their very long term.

Free marketability of stock options is the central and key assumption of the BlackScholes model and related economic valuation models because they are based on the principle of "no-arbitrage" - namely, that there can be no combination of stock positions (e.g., long, short, puts, calls, etc.) that allows some simultaneous purchase of one and sale of another to produce a risk-free profit. Unlike plain-vanilla market-traded options, employee stock options are typically burdened with the many restrictions, including:

- strict prohibitions on sale,
- serious limitations on gift transfer,
- forfeiture if employee loses or leaves job before vesting,
- forced exercise (or forfeiture) if employee leaves job after vesting,
- legal restrictions on dealing in company stock (e.g., insider trading rules), and
- corporate prohibitions on selling company stock short.

Accounting rules governing the use of valuation models for employee stock options under U.S. GAAP (e.g., for footnote disclosures) attempt to account for these restrictions

[^20]in a number of ways; however, none of these adjustments is fundamentally sound as an economic matter, and each introduces a further element of speculation and imprecision:

- While marketable options can be accurately valued based on expected volatility and the risk-free interest rate, the value of non-marketable options would theoretically require knowledge of the employee-optionholder's outlook on the prospects of the stock and his risk prerferences. Because these factors are obviously not readily available and highly speculative, expected volatility and the risk-free interest rate are used instead.
- While volatility is the primary driver of marketable options values to an outside investor or a market maker because of the potential upside benefit is greater, excess volatility actually decreases value to employees due to risk preferences. Accounting standards on how to measure and adjust volatility for employee stock options is lacking; different companies take very different approaches in practice.
- Vesting restrictions reduce value. U.S. GAAP allows the total option expense amount to be reduced by a factor representing the expected employee turnover rate and resulting forfeitures during the vesting period.
- Requirement that employees exercise or forfeit vested options when they leave jobs leads to early exercise, reducing value. Restrictions on transfer and hedging of shares leads to early exercise depending on employee's cash needs. GAAP rules allow the use of the average expected term of employee options rather than their nominal term in an attempt to account for early exercises. However, this is a highly imprecise and unprincipled approach. Among other things, it does not take into accounts that early exercise is more likely if stock value increases rapidly, which further reduces option value.

In addition to these factors, the very long term of employee stock options greatly complicates the valuation exercise. The term of a typical market-traded option is a few months although some are as long as a year or two. By contrast, the typical employee stock option does not even vest for three to four years, but then remains exercisable for five or more years provided the employee remains in his job. The very long term greatly increases the uncertainty of typical volatility measures (short term measures are likely to overstate value) as well as that of other key assumptions (e.g., dividend payout, risk-free interest rate).

All of these are among the reasons that most U.S. companies opposed mandatory expensing of option expense using a grant-date valuation model when U.S. GAAP standards being reconsidered about ten years ago, and have chosen to continue to use the intrinsic value method for financial statement reporting ever since that time.Moreover, the grant of at-the-money employee stock options does not, in any way, reduce corporate cash flow; but merely represents potential dilution of shareholders' ownership in the event employee efforts increase the value of the shares. No independent company would agree to share "costs" based on the value of potential benefits to another company's shareholders.Except to the extent they are "in the money" at grant, AeA believes that stock options are not compensation for past work, but are rather an incentive for future performance. Therefore, AeA concludes that the intrinsic value method of accounting for stock options is most consistent with the business objectives of parties entering into an arm's length cost sharing arrangement.

## II. Anti-Competitive Effects

Due to their inconsistency with the international arm's length standard, the Proposed Regulations can be expected to produce a number of side effects that will damage the competitiveness of U.S. industry and harm the U.S. job market. Many of the largest trading partners of the United States - including Canada, Japan and several European Union countries - appear very unlikely to accept the Proposed Regulations' view of the arm's length standard. We are aware of U.S. companies that have cost sharing arrangements that include participants from each of these countries. Moreover, the negative effects would be magnified if the IRS and Treasury extend the principles of the Proposed Regulations to other areas of transfer pricing, such as intercompany services. We strongly believe it is inadvisable to pursue the Proposed Regulations without first seeking harmony within the international community and among different transfer pricing areas.

## A. Double Taxation of U.S. Companies

Employee stock options play a key role in the U.S. economy, and are particularly important in the high technology sector. Stock options provide fuel that helps make the sector an engine of growth and innovation. Options motivate employees to give peak performances, and allow them to share the rewards if the enterprise is successful.
U.S. tax treatment of stock options reflects Congressional recognition of the many social benefits employee options provide. At the individual tax level, Congress has created favorable tax regimes for incentive stock options and employee stock purchase plans. See I.R.C. §§ 422 \& 423. At the corporate level, Congress provides deductions when employees of U.S. corporate taxpayers have income from disqualifying dispositions of incentive stock options or from exercising non-qualified stock options. See I.R.C. § 83(h). As Senator George Allen stated in recent Senate debate, successfully opposing proposed changes in the tax treatment of employee stock options:

In our effort to reform, we must not enact measures that stifle innovation and endanger the American entrepreneurial spirit. Congress should not harm future opportunities for employees to own a part of their company for whom they work. Unfortunately, the Levin-McCain amendment does just that by unjustifiably upsetting the current tax treatment of stock options. It is unnecessary and unwise to change these particular accounting policies. ${ }^{13}$
The Proposed Regulations would, in many cases, have the effect of denying the tax benefits that Congress sought to provide to companies offering stock options to U.S. employees. The purposes of the stock option deduction are to encourage and reward employee ownership and entrepreneurship within the United States. Accordingly, no U.S. corporate tax deduction is allowed for stock options exercised by foreign employees who are not subject to the U.S. federal income tax on their individual income.

Whether a foreign corporation - even a foreign affiliate of a U.S.-based multinational - is entitled to a corporate tax deduction for stock options issued to its

[^21]employees depends on the tax rules of the foreign country where it operates. Clearly, the decision whether to encourage employee stock ownership and entrepreneurship within its borders is appropriately a matter of domestic tax policy for each country. U.S.-based multinationals take the tax policies of each foreign country where they operate into consideration when deciding whether to extend stock option benefits to local employees.

The Proposed Regulations would turn these policy considerations on their head. Because costs charged out to a foreign participant under QCSA reduce tax deductions otherwise available to the U.S. participant, the Proposed Regulations would have the effect of denying part of the deduction for U.S. employee stock options. As a result, U.S. participants will have to consider foreign tax treatment of option-related cost sharing payments before deciding whether to extend stock option benefits to U.S. employees.

AeA is confident that a great many foreign countries will reject the premises and results of the Proposed Regulations, based either on domestic tax rules or their views of the arm's length standard. Many of these countries will disallow a deduction for the portion of a cost sharing payment made by a local company that is attributable to U.S. employee stock options, based on one or more of the following principles:

- The local country does not allow deductions for payments to affiliates that violate the arm's length standard, and agrees with AeA that the evidence establishes that independent parties would not agree to share or reimburse amounts based on a valuation of the other party's at-the-money stock options;
- The local country does not allow deductions that relate to employee stock options in any form whatsoever;
- The local country does not recognize any "cost" for employee stock options unless the issuing company acquires the stock or options on the open market; or
- The local country does not allow deductions for stock options granted to employees not subject to the local individual income tax, and would not allow such deductions indirectly through a cost sharing payment either.

If the foreign country disallows the deduction for any of these reasons, the U.S.-based multinational group will not get any deduction whatsoever for stock options issued to U.S. employees, contrary to Congressional intent. Unless the foreign Competent

Authority can be convinced that the cost sharing payment is consistent with the arm's length standard in spite of the country's tax rules on stock option deductions, then there will be no relief for the resulting double taxation.

Conversely, the Proposed Regulations may create an opportunity for foreign-based multinationals to obtain a U.S. tax deduction for stock options issued to their employees that was not previously available under their home country tax laws. Where a foreign parent company has a QCSA with its U.S. subsidiary and performs most of the R\&D in the parent company's country, the effect of including stock option costs in the cost sharing pool is to increase in U.S. deductible expenses. If the Proposed Regulation is finalized, this unintended side effect would not only deprive the U.S. Treasury of tax receipts, but also provide the same tax incentives intended to encourage U.S. employee stock ownership to foreign QCSA participants. Stock options are becoming increasingly popular internationally, and many foreign groups (particularly, European-based groups) with multiple R\&D centers already use cost sharing arrangements to manage their intangible property. These trends may accelerate if companies decide to take advantage of the opportunities created by the Proposed Regulations. As previously noted, the double-taxation effect would be greatly magnified if the IRS and Treasury were to extend the principles of the Proposed Regulations to other areas of transfer pricing besides cost sharing, such as intercompany service charges. If, as seems likely, several of our largest trading partners, such as Canada and Japan, soundly reject the principles of the Proposed Regulations in all transfer pricing areas, the resulting increase in the tax burden on U.S. companies could be truly enormous.

## B. Impact on U.S. Job Market

It is significant to note that the Proposed Regulations would only provide unwarranted benefits to foreign companies to the extent they perform research and development or other stock-compensated activities outside of the United States. By the same token, the Proposed Regulations would also create a powerful incentive for U.S. companies to move key research jobs offshore.

An unexpected effect of the Proposed Regulations may well be to encourage U.S. multinationals to move R\&D activities out of the United States and to replace U.S. personnel with foreign nationals. With the rapid growth of well-educated engineers and other skilled professionals in places like India and China, this possible effect cannot be lightly dismissed.

## C. Secondary Effects on U.S. Industry

Some U.S. high-tech companies would find the treatment of stock options for cost sharing urged the Proposed Regulations to be so onerous that they would discontinue offering options to all but the most senior executives. Others would become so embroiled in international tax disputes due to new uncertainty in cost sharing that they would find their businesses profoundly disrupted. The negative impact on employee morale and business operations would severely damage the international competitiveness of U.S. industry in general, and AeA member companies disproportionately.

The high technology sector leads U.S. industries in providing stock options to the broadest base of rank-and-file employees. In fact, in August 2002, AeA released its own survey of over 525 public companies that found that $84 \%$ of high-tech workers in public companies receive stock options. As a result of the high speed of innovation and change, the high technology sector also boasts many of the most volatile issues on the stock market. Furthermore, due to the global reach of technology and the high level of international merger and acquisition activity in the sector, research and development cost sharing plays a particularly important role in the business strategies of high technology companies.

As a result of this combination of characteristics, the Proposed Regulations' position on stock options and cost sharing would have a disproportionately harsh and negative effect on AeA member companies and others in the high technology sector. Under the Proposed Regulations' approach, stock market volatility can result in cost sharing charges that are both very large and extremely unpredictable. To manage the potential exposure, some AeA member companies may find it necessary to discontinue

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offering stock options to the broadest possible employee base, leaving options available only to the most senior executives who have the bargaining power to demand them.

Many other AeA member companies value broad-based stock option programs too highly to allow them to be undermined by adverse tax effects. These companies would have no choice but to dedicate a larger share of their budgets, time and energy to resolving international tax disputes.

## D. Other Effects on U.S. Treasury

Lastly, the Proposed Regulations may adversely impact the Treasury in other, unexpected ways. For one thing, the Treasury is likely to find extra resources will be needed to deal with the international tax controversies generated. In addition, Treasury should expect to find that private contractors will have a strong incentive and rationale to request changes in government contracting regulations (i.e., the FAR) to allow them to charge out employee stock options in military procurement contracts. If the U.S. government truly believes parties at arm's length compensate others for their employee stock options, AeA believes that the government should do so itself. It is altogether possible that, by extending new tax deductions to foreign corporations, and by causing the government to incur new charges on procurement contracts, the Proposed Regulations will have a negative impact on the U.S. Treasury on net.

## III. Conclusion and Recommendations

The centrality of the arm's length standard to the international tax policy of the United States should be clear from its presence in every bilateral income tax treaty as well as the major U.S. role in formulating the OECD Guidelines. The White Paper draws precisely this conclusion:

It is equally clear as a policy matter that, in the interest of avoiding extreme positions by other jurisdictions and minimizing the incidence of disputes over primary taxing jurisdiction in international transactions, the United States should continue to adhere to the arm's length standard. If a U.S. policy goal is to discourage other countries from taking extreme positions to the detriment of U.S. businesses, then it is incumbent on those administering and
adjudicating the U.S. tax system to avoid extreme positions as well. In order to minimize the incidence of double taxation and international tax disputes, it is crucial that all countries strive toward a universal application of arm's length principles.

White Paper, Chapter 7, section B (footnotes omitted).
The approach to stock option accounting advanced by the Proposed Regulations is the sort of "extreme position" that ought to be avoided. If all countries required taxpayers to apply local tax rules to transfer pricing analysis, double taxation and international disputes would be the rule rather than the exception. Withdrawal of the Proposed Regulations is therefore consistent with the international tax policy of the United States.

Strengthening the arm's length standard must remain an tax policy priority if U.S. companies are to be competitive in the global economy. Only if there is broad international consensus on arm's length principles, including the measurement of costs under cost sharing arrangements, can U.S. companies achieve parity with foreign competitors and avoid debilitating disputes with foreign tax authorities. Imposing U.S. tax accounting rules for cost sharing would undercut this worthy goal.

Accordingly, the AeA strongly urges the Treasury to withdraw these Proposed Regulations and requests to testify at the public hearing scheduled for November 20, 2002.

Respectfully Submitted,

Dated: October 28, 2002
CanDice Graves Holey
Tax Counsel, Director of Tax Policy AeA-Advancing the Business of Technology 601 Pennsylvania Avenue, NW North Building, Suite 600 Washington, DC 20004
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November 5, 2002

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## Re: Notice of Proposed Rulemaking Regarding Compensatory Stock Options Under Section 482

Ladies and Gentlemen:
On behalf of the Software Finance and Tax Executives Council ("SoFTEC"), we are submitting comments on the notice of proposed rulemaking under section 482, REG - 106359 02, published in the Federal Register on July 29, 2002, regarding the application of the rules of section 482 to qualified cost sharing arrangements. These proposed regulations would require that taxpayers include the "cost" or value of stock-based compensation in the pool of costs to be shared under qualified cost sharing arrangements. As discussed below, these proposed regulations are inconsistent with the hallmark of the arm's length standard embodied in section 482, the regulations thereunder, the OECD Transfer Pricing Guidelines, and United States tax treaties. The proposed regulations should be withdrawn. In the alternative, we propose a "stock based compensation safe harbor" approach that would be created within the cost sharing regulations. This safe harbor would be an exception to the arm's length standard and would allow taxpayers to "opt in" and avoid the disputes that have been waged over the past several years regarding whether unrelated parties acting at arm's length would share the stock option value or "costs."

SoFTEC is a non-profit trade association focusing on finance, tax, and accounting issues relevant to the software industry. SoFTEC's membership comprises many of the world's leading software companies. See http://www.softwarefinance.org. Over the years, many SoFTEC member companies have entered into qualified cost sharing arrangements in accordance with

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section 482 of the Internal Revenue Code and Treasury Regulation § 1.482-7 and have also entered into joint development agreements with unrelated parties. Over time, SoFTEC members have granted at-the-money stock options to their employees, including personnel involved in research and development activities covered under qualified cost sharing arrangements. Recently, SofTEC has made a motion to the U.S. Tax Court to file a brief amicus curiae in Xilinx v. Commissioner, T.C. Dkt. No. 4142-01 (Apr. 4, 2002), which involves the issue of whether taxpayers must include stock option value or "costs" in their cost sharing pools under Treasury Regulation §1.482-7. That motion remains pending.

## I. FOR NEARLY SEVENTY YEARS, THE HALLMARK OF INTERCOMPANY TRANSFER PRICING RULES IN THE UNITED STATES HAS BEEN THE ARM'S LENGTH STANDARD

## A. The Arm's Length Standard Has Long Guided Congress and the Treasury

The Commissioner is authorized under section 482 of the Internal Revenue Code of 1986, as amended, to "distribute, apportion or allocate gross income, deductions, credits or allowances" between related parties "if he determines that such apportionment, allocation or distribution is necessary in order to prevent evasion of taxes or clearly reflect the income of [a controlled party]."

The Commissioner's authority to reallocate income first appeared in section 240(d) of the Revenue Act of 1921. Section 240(d) provided that where two or more related trades or businesses were owned or controlled directly or indirectly by the same interests, the Commissioner could "consolidate the accounts ... in any proper case, for the purpose of making an accurate distribution or apportionment of gains, profits, income, deductions, or capital between or among such related trades or businesses." ${ }^{1}$

The consolidation requirement of section 240 (d) was eliminated when the provision was re-enacted in modified form as section 45 of the Revenue Act of 1928. ${ }^{2}$ The report accompanying the enactment of section 45 provided that it was to be applied to related party transactions "as may be necessary to prevent evasion (by shifting of profits, the making of fictitious sales, and other methods frequently applied for the purpose of 'milking') and in order to clearly reflect their true tax liability." ${ }^{3}$ The Revenue Act included these purposes - "to

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prevent evasion of taxes" and "to clearly reflect income" - in the statutory language, where they remain to this day.

In 1934, the Secretary issued regulations interpreting section 45 . Like those of section 482 today, these regulations provided that the arm's length standard governed the application of section 45 , so that a controlled taxpayer could be placed
on a tax parity with an uncontrolled taxpayer, by determining, according to the standard of an uncontrolled taxpayer, the true net income from the property and business of a controlled taxpayer....The standard to be applied in every case is that of an uncontrolled taxpayer dealing at arm's length with another uncontrolled taxpayer. ${ }^{4}$

The essence of the 1934 regulations - requiring controlled taxpayers to deal with each other at arm's length - has been the basic policy behind section 482 and its regulations throughout its history. This overriding premise has remained unchanged through repeated reenactments of the revenue laws, including the Internal Revenue Codes of 1921, 1928, 1939, 1954, and 1986, and Treasury's various pronouncements on, and incarnations of, the section 482 regulations over these many years.

After more than 30 years of only nominal changes in the regulations, ${ }^{5}$ Treasury in 1966 issued proposed regulations under section 482 to provide more specific rules for the allocation of income and deductions among taxpayers (the "1966 proposed regulations"). ${ }^{6}$ The arm's length principle of the section 45 regulations remained unchanged under the 1966 proposed regulations. The proposed regulations articulated how the arm's length standard generally applied to five specific types of transactions between related parties (loans and advances; services; transfers of tangible property; transfers of intangible property; and cost sharing). For each category, the regulation required that the terms of the same transaction type between independent parties be examined to determine whether the transaction between the related parties was at arm's length, i.e., to determine the prices that unrelated parties charged, or would have charged at the time, in independent transactions under similar circumstances." The proposed regulations were adopted in 1968 (the "1968 regulations"). ${ }^{8}$

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The next major development occurred in 1986 when Congress enacted the "commensurate with income" standard. ${ }^{9}$ Treasury again reaffirmed that the arm's length standard governs intercompany transfer pricing under section 482 in "A Study of Intercompany Pricing Under Section 482 of the Code" (the "White Paper"): ${ }^{10}$

Congress intended the commensurate with income standard to be consistent with the arm's length standard, and it will be so interpreted and applied by the Internal Revenue Service and the Treasury.

Treasury and the Internal Revenue Service (the "Service") were unambiguous in stating that "the correct application of the commensurate with income standard is premised soundly on arm's length principles." ${ }^{11}$

Looking at the income related to the intangible and splitting it according to relative economic contributions is consistent with what unrelated parties do. The general goal of the commensurate with income standard is, therefore, to ensure that each party earns the income or return from the intangible that an unrelated party would earn in an arm's length transfer of the intangible. ${ }^{12}$

In response to the comments Treasury received on the White Paper, Treasury proposed new section 482 regulations in January 1992 (the " 1992 proposed regulations"). ${ }^{13}$ The 1992 proposed regulations made four changes to the then-current section 482 regulations: (i) amended the scope and purpose of the regulations to reflect the "commensurate with income" standard; (ii) adopted new methods for the transfer of tangible property; (iii) adopted new methods for the transfer of intangible property; and (iv) expanded the guidelines for cost sharing. A year later, on adopting the proposed regulations as temporary regulations, Treasury stated:

As part of the recommended changes to the scope and purpose of the regulations, the proposed regulations included a statement that a broad principle to be applied in all cases was whether uncontrolled taxpayers exercising sound business judgment would have agreed to the same terms in the same circumstances. ${ }^{14}$

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Treasury issued the 1993 temporary regulations to provide taxpayers with immediate guidance on the implementation of the commensurate with income standard. Treasury and the Service again reiterated their position that the commensurate with income standard was consistent with, and equivalent to, the arm's length standard and explained that the 1993 temporary regulations were drafted to remove any doubt about the United States' intent to adhere to the arm's length standard:

The scope and purpose provisions have been reorganized to make clear that the arm's length standard is the guiding principle for all allocations under section 482, and to provide additional guidance for determining comparability under the arm's length standard. Section 1.482-1T(a)(1) reaffirms that the purpose of section 482 is to ensure that taxpayers clearly reflect their income by placing a controlled taxpayer on a tax parity with an uncontrolled taxpayer by determining the controlled taxpayer's true taxable income....

Section $1.482-1 \mathrm{~T}(\mathrm{~b})(1)$ reaffirms that in determining a taxpayer's true taxable income, the standard to be applied is that of a taxpayer dealing at arm's length with an uncontrolled taxpayer (the arm's length standard). In this respect, the regulations are consistent with the current regulations and reflect many comments on the proposed regulations, which stressed the importance of adhering to the arm's length standard. The arm's length standard is satisfied if the results of controlled transactions are consistent with the results that would have been realized had uncontrolled taxpayers engaged in a comparable transaction under comparable circumstances. ${ }^{15}$

In July 1994, final regulations were issued that were generally consistent with the format and substance of the 1993 temporary regulations, including its expressed adherence to the arm's length standard (the "1994 final regulations"). ${ }^{16}$ Treasury and the Service again revised the regulation's language to underscore the United States' adherence to the arm's length standard:

With one exception, the scope and purpose of the regulations (§ $1.482-1(\mathrm{a})(1))$ is substantially similar to its counterpart in the 1993 regulations. The final regulations delete the statement that section 482 placed uncontrolled and controlled taxpayers on a parity by determining the controlled taxpayer's true taxable income "in a manner that reasonably reflects the relative economic activity undertaken by each taxpayer." The definition of true taxable income in § 1.482-1(i)(9) already incorporates

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> the notion that, under section 482 , the controlled taxpayer should earn the amount of income that would have resulted had it dealt with other controlled taxpayers at arm's length. Because a transaction at arm's length naturally would reflect the "relative economic activity undertaken," this definition incorporates that concept, and it is unnecessary to include the additional language in this provision."

It is apparent from this overview (of Treasury Regulations 86 under the Revenue Act of 1934, the section 482 regulations under the 1954 Internal Revenue Code, the 1966 proposed regulations, Treasury's 1988 White Paper, the 1992 proposed regulations, the 1993 temporary regulations, and the 1994 final regulations) that, to date, Treasury has remained steadfast in its adherence to the arm's length standard as the standard governing all related party transactions.

## B. The Arm's Length Standard Is Enshrined in Case Law

Like the regulations, the case law under sections 45 and 482 has repeatedly reaffirmed that the arm's length standard should be used to determine the "true" taxable income of controlled parties. Thus, in finding that an allocation by the Commissioner under section 45 was unwarranted, the Tax Court - in 1951 - stated in Grenada Industries:
[T]he fact remains that Abar paid and received fair market prices, as though its transactions had been carried on with strangers. No more could be expected of it. ${ }^{18}$

Again in 1960, in holding that the Commissioner's allocation under section 45 was in error, the Tax Court in Virginia Metal Products stated:

There is no evidence in the record to show that the dealings between the two corporate entities of Virginia and Winfield were not at all times at arm's length. In fact, we found them to be at arm's length. ${ }^{19}$

Similarly, as noted by the Fourth Circuit Court of Appeals in Aiken Drive-In, section 482 gives the Commissioner the power to place a controlled taxpayer on a tax parity with an uncontrolled taxpayer. The Fourth Circuit Court of Appeals further stated:
[The Commissioner's] object is to arrive at the true net income of each controlled taxpayer and the technique used is the application of the

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standard of an uncontrolled taxpayer dealing at arm's length with another uncontrolled taxpayer. Whenever the lack of an arm's length relationship produces a different economic result from that which would ensue in the case of two uncontrolled taxpayers dealing at arm's length, the Commissioner is authorized to allocate gross income and deductions. ${ }^{20}$

Indeed, as the courts regularly reaffirm, so long as a transaction between related entities is carried out on an arm's length basis, the Commissioner is without authority to invoke section 482 at all. ${ }^{21}$ The arm's length standard is the standard by which all actions of taxpayers, and of the Commissioner, are measured.

## II. THERE IS NO EXCEPTION TO THE ARM'S LENGTH STANDARD FOR COST SHARING ARRANGEMENTS

As both the original 1968 regulations and, later, the 1988 White Paper recognized, "[C]ost sharing arrangements have long existed at arm's length between unrelated parties." ${ }^{22}$ Accordingly, related party cost sharing arrangements have always been evaluated under the arm's length standard. When first issued, the 1966 proposed regulations provided a detailed set of cost sharing rules, ${ }^{23}$ much like those reflected in the cost sharing provisions of the 1992 proposed regulations and the final regulations under Treas. Reg. § 1.482-7. ${ }^{24}$ Although they set forth significant administrative and disclosure requirements and certain empirical criteria for qualified cost sharing arrangements, the 1966 proposed regulations specifically required costs to be shared on an arm's length basis, that is, in the same manner that such costs would be shared between unrelated persons. ${ }^{25}$ Furthermore, the Commissioner's discretion to make adjustments to these agreements was limited to adjustments required to reflect arm's length sharing of the risks, benefits, and costs. ${ }^{26}$

When the 1968 regulations were promulgated, however, the Service eliminated the detailed cost sharing rules of the 1966 proposed regulations and opted for the simpler approach

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of Treas. Reg. § 1.482-2(d)(4)(1968). What remained was significant. Section 1.482-2(d)(4) continued to provide for costs and risks to be shared on an arm's length basis and limited the Commissioner's authority to make adjustments to bona fide cost sharing agreements to only those adjustments necessary to reflect an arm's length sharing of risks and costs. Section 1.482$2(\mathrm{~d})(4)$ also specifically provided that "the district director shall not make allocations with respect to such [a bona fide cost sharing agreement] except as may be appropriate to reflect each participant's arm's length share of the costs and risks of developing the property." In the Treasury Department Release that accompanied the 1968 regulations, Treasury explained its rationale for the changes in the cost sharing rules:

The regulations provide a means whereby the necessity of determining the arm's length charge may be avoided if the parties using the property enter into a bona fide cost sharing arrangement in connection with the development of the intangible property. Detailed rules with respect to the establishment of a bona fide cost sharing arrangement, which appeared in the earlier proposed regulations, have been eliminated in the final regulations. These rules are replaced by a concise statement of general rules based on arm 's length standards. ${ }^{2 \dagger}$

Nearly thirty years later, the final cost sharing regulations under Treas. Reg. § 1.482-7 (the "1995 cost sharing regulations") continued to reflect the overriding cannon that the arm's length standard applies to all transfer pricing methods. ${ }^{28}$

After adopting the arm's length standard for cost sharing arrangements in its own regulations, the United States successfully exported this view to its global trading partners. The United States Model Income Tax Convention and the Technical Explanation to the Convention explicitly acknowledge that related party cost sharing arrangements, like any other related party transaction, will be respected only if the arrangement satisfies the arm's length standard. ${ }^{29}$ The U.S. Model Technical Explanation to Article 9, the operative article of the U.S. Model Tax Convention dealing with transfer pricing issues, provides, inter alia, that the arm's length standard governs all transfer pricing issues, including cost sharing arrangements:
[T]he fact that associated enterprises may have concluded arrangements, such as cost sharing arrangements or general services agreements, is not in itself an indication that the two enterprises have entered into a non-arm's-length transaction that should give rise to an adjustment under

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paragraph 1. Both related and unrelated parties enter into such arrangements (e.g., joint venturers may share some development costs). As with any other kind of transaction, when related parties enter into an arrangement, the specific arrangement must be examined to see whether or not it meets the arm's-length standard. In the event it does not, an appropriate adjustment may be made, which may include modifying the terms of the arrangement or re-characterizing the transaction to reflect its substance. ${ }^{30}$

The OECD Model Tax Convention similarly acknowledges that related party cost sharing arrangements, like any other related party transaction, will be respected only if the arrangement satisfies the arm's length standard. The OECD Model Commentary ${ }^{31}$ makes reference to the OECD Transfer Pricing Guidelines. ${ }^{32}$ Chapter VIII of these guidelines deals with cost sharing arrangements, which the OECD calls "cost contribution arrangements" or "CCAs." The Guidelines provide that:

Where a CCA is not consistent with the arm's length principle, the consideration received by at least one other participant for its contribution will be excessive, relative to what independent enterprises would have received. In such a case, the arm's length principle would require that an adjustment be made. ${ }^{33}$

For the conditions of a CCA to satisfy the arm's length principle,
[A] participant's contributions must be consistent with what an independent enterprise would have agreed to contribute under comparable circumstances given the benefits it reasonably expects to derive from the arrangement., ${ }^{34}$

Numerous United States treaties also explicitly acknowledge that related party cost sharing arrangements, like any other related party transaction, will be respected only if the arrangement satisfies the arm's length standard (either in the treaty itself or in Treasury's

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accompanying technical explanation to the treaty). See, e.g., the United States income tax treaties and related technical explanations with Austria, ${ }^{35}$ Denmark, ${ }^{36}$ Estonia, ${ }^{37}$ Ireland, ${ }^{38}$ Italy, ${ }^{39}$ Latvia, ${ }^{40}$ Lithuania, ${ }^{41}$ Netherlands, ${ }^{42}$ Slovenia, ${ }^{43}$ South Africa, ${ }^{44}$ Switzerland, ${ }^{45}$ Thailand, ${ }^{46}$

[^30] to Taxes on Income, Art. 9 §1, May 30, 1996, U.S.-Austria, S. Treaty Doc. No. 104-31, 1996 U.S.T. LEXIS 77; Dept. of Treasury, Technical Explanation of the United States-Austria Income Tax Treaty at 15 (September 19, 1996).
${ }^{36}$ Convention for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income, Art. 9 \$1, August 19, 1999, U.S.-Denmark, S. Treaty Doc. No.106-12, 1999 U.S.T. LEXIS 167; Dept. of Treasury, Technical Explanation of the United States-Denmark Income Tax Treaty at 29 (Oct. 27, 1999).
${ }^{37}$ Convention for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income, Art. 9 \$1, January 15, 1998, U.S.-Estonia, S. Treaty Doc. No.105-55, 1998 U.S.T. LEXIS 193; Dept. of Treasury, Technical Explanation of the United States-Estonia Income Tax Treaty at 29-30 (Oct. 27, 1999).
${ }^{38}$ Convention for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and Capital Gains, Art. 9 \|1, July 28, 1997, U.S.-Ireland, S. Treaty Doc. No. 10531, 1997 U.S.T. LEXIS 98.
${ }^{39}$ Convention for the Avoidance of Double Taxation and Prevention of Fraud or Fiscal Evasion, Art. 9 §1, August 25, 1999, U.S.-Italy, S. Treaty Doc. No. 106-11; Dept. of Treasury, Technical Explanation of the United States-Italy Income Tax Treaty at 28 (Oct. 27, 1999).
${ }^{40}$ Convention for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income, Art. 9 \$1, January 15, 1998, U.S.-Latvia, S. Treaty Doc. No.105-57, 1998 U.S.T. LEXIS 195; Dept. of Treasury, Technical Explanation of the United States-Latvia Income Tax Treaty at 30 (Oct. 27, 1999).
41 Convention for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income, Art. 9 §1, January 15, 1998, U.S.-Lithuania, S. Treaty Doc. No.105-56, 1998 U.S.T. LEXIS 194; Dept. of Treasury, Technical Explanation of the United States-Lithuania Income Tax Treaty at 30 (Oct. 27, 1999).
${ }^{42}$ Convention the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income, Art. 9 I1, December 18, 1992, U.S.-Netherlands, S. Treaty Doc. No.103-6, 1992 U.S.T. LEXIS 194; Dept. of Treasury, Technical Explanation of the United States-Netherlands Income Tax Treaty at 22-25 (Oct. 27, 1993).
${ }^{43}$ Convention for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and Capital, Art. 9 $\ddagger 1$, June 21, 1999, U.S.-Slovenia, S. Treaty Doc. No.106-9, 1999 U.S.T. LEXIS 169; Dept. of Treasury, Technical Explanation of the United States-Slovenia Income Tax Treaty at 27 (Oct. 27, 1999).
${ }^{44}$ Convention for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and Capital Gains, February 17, 1997, U.S.-South Africa, Art. 9 §1, S. Treaty Doc. No. 105-9, 1997 U.S.T. LEXIS 117; Dept. of Treasury, Technical Explanation of the United States-South Africa Income Tax Treaty at 28 (Oct. 7, 1997).
${ }^{45}$ Convention for the Avoidance of Double Taxation with Respect to Taxes on Income, Art. 9 §1, October 2, 1996, U.S.-Switzerland, S. Treaty Doc. No.105-8, 1996 U.S.T. LEXIS 74; Dept. of

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Turkey ${ }^{47}$ and Venezuela. ${ }^{48}$ See also the United States' income tax treaties and related technical explanations with Finland, ${ }^{49}$ Germany, ${ }^{50}$ India, ${ }^{51}$ Luxembourg, ${ }^{52}$ and Sweden ${ }^{53}$ (treaties entered into prior to publication of Treas. Reg. § 1.482-7 and the U.S. Model Tax Convention; United States promises treaty partners that the commensurate with income standard would be interpreted in a manner consistent with, and not as a departure from, the arm's length standard).

The OECD has also recognized that the arm's length standard plays a vital role in promoting international trade:

Treasury, Technical Explanation of the United States-Switzerland Income Tax Treaty at 28-29 (Oct. 7, 1997).
${ }^{46}$ Convention for the Avoidance of Double Taxation with Respect to Taxes on Income, Art. 9 \$1, November 26, 1996, U.S.-Thailand, S. Treaty Doc. No. 105-2, 1996 U.S.T. LEXIS 71; Dept. of Treasury, Technical Explanation of the United States-Thailand Income Tax Treaty at 29-30 (Oct. 7, 1997).
${ }^{47}$ Agreement for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income, Art. 9 §1, March 28, 1996, U.S.-Turkey, S. Treaty Doc. No. 104-30, 1996 U.S.T. LEXIS 78; Dept. of Treasury, Technical Explanation of the United States-Turkey Income Tax Treaty at 31 (Sept. 19, 1996).
48 Convention for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and on Capital, U.S.-Venezuela, Art. 9 §l, January 25, 1999, S. Treaty Doc. No.106-3, 1999 U.S.T. LEXIS 162; Dept. of Treasury, Technical Explanation of the United StatesVenezuela Income Tax Treaty at 30 (Oct. 27, 1999).
Convention for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and on Capital, Art. 9 §1, U.S.-Finland, September 21, 1989, S. Treaty Doc. No.101-11, 1989 U.S.T. LEXIS 209; Dept. of Treasury, Technical Explanation of the United StatesFinland Income Tax Treaty at 13 (June 14, 1990).
${ }^{50}$ Convention for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and Capital and to Certain Other Taxes, Art. 9 ๆ1, August 29, 1989, U.S.Germany, S. Treaty Doc. No.101-10, 1989 U.S.T. LEXIS 233; Dept. of Treasury, Technical Explanation of the United States-Germany Income Tax Treaty at 22 (June 14, 1990).
Convention for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income, Art. 9 §1, September 12, 1989, U.S.-India, S. Treaty Doc. No.101-5, 1989 U.S.T. LEXIS 236; Dept. of Treasury, Technical Explanation of the United States-India Income Tax Treaty at 22 (June 14, 1990).
${ }_{52}$ Convention for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and Capital, Art. 9 91, April 3, 1996, U.S.-Luxembourg, Sen. Treaty Doc. 104-33; Dept. of Treasury, Technical Explanation of the United States-Luxembourg Income Tax Treaty at 30 (Sept. 19, 1996). to Taxes on Income, Art. 9 Il, September 1, 1994, U.S.-Sweden, S. Treaty Doc. No.103-29, 1994 U.S.T. LEXIS 218; Dept. of Treasury, Technical Explanation of the United States-Sweden Income Tax Treaty at 21 (June 13, 1995).

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Because the arm's length principle puts associated and independent enterprises on a more equal footing for tax purposes, it avoids the creation of tax advantages or disadvantages that would otherwise distort the relative competitive positions of either type of entity. In so removing these tax considerations from economic decisions, the arm's length principle promotes the growth of international trade and investment. ${ }^{54}$

## III. THE PROPOSED REGULATIONS ARE INCOMPATIBLE WITH THE ARM'S LENGTH STANDARD AS IT HAS BEEN UNDERSTOOD FOR NEARLY SEVENTY YEARS

## A. The Proposed Regulations Arise Out of Several Years of Disputes With Taxpayers Over the Inclusion of Stock Options

Treasury issued the proposed regulations to address a very specific question arising out of the stock market run-up of the 1990s and the increased use of stock options in employee compensation packages. In particular, the Service has been interpreting the cost sharing regulations to require taxpayers to include the "cost" or value of employee stock options in their pool of costs. On audit, in Advance Pricing Agreement negotiations, in docketed Tax Court cases, in published field service advice, and in speeches by Service officials at various tax forums, the Service has taken the position that stock-based compensation constitutes a "cost" that, as such, must be included in related parties' cost sharing pools. ${ }^{55}$

Taxpayers have steadfastly and vehemently disagreed. First and foremost, taxpayers maintained that unrelated parties acting at arm's length did not share such "costs." Taxpayers provided evidence of billions of dollars paid under research and development cost sharing agreements where the United States itself did not reimburse stock option "costs" yet companies willingly participated in such arrangements. The Service, for its part, never produced - and is still yet to produce - any evidence that unrelated parties acting at arm's length in fact do share stock option "costs" in their own cost sharing pools. In Tax Court, the Service has even several times admitted that it has no evidence of unrelated parties acting at arm's length ever sharing the "cost" or value of employee stock options. ${ }^{56}$ Thus, taxpayers argued, the Commissioner had no

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authority to make any adjustments under section 482.
The Service has since abandoned its position under the 1968 regulations and recently directed its agents to stop taking the position that stock option "costs" or value must be included in cost sharing agreements in all cases involving the 1968 regulations. ${ }^{57}$ Likewise, the Service conceded the issue and entered into a stipulation of settlement to that end in Xilinx $v$. Commissioner. ${ }^{58}$ Nevertheless, the Service continues to maintain its position under the 1995 cost sharing regulations. The Service continues as well to be unable to show that unrelated parties acting at arm's length include stock-based compensation costs in their cost sharing agreements.

## B. The Proposed Regulations Represent a Fundamental Departure from the Arm's Length Standard as It Has Been Universally Understood

Treasury has justified the issuance of the proposed regulations by claiming that they merely "clarify" the 1995 cost sharing regulations. They do not. Instead, they represent a unilateral and fundamental change that ignores the manner by which unrelated parties act at arm's length. The proposed regulations are, therefore, incompatible with the arm's length standard.

The arm's length standard of section 482 has never been based on a priori concepts of what the Service thinks taxpayers should do; it has been based on what arm's length parties actually do. Generally, uncontrolled parties do not negotiate their business transactions based on rigid, preset formulae, but rather on the basis of existing market conditions. Unrelated parties determine their pricing on a case-by-case basis by analyzing the available market data. It is a fact intensive exercise, based on specific circumstances surrounding the developed intangibles, the market, and the taxpayer. The OECD Guidelines conclude that preset formulae "are likely to be arbitrary since they rarely fit exactly the varying facts and circumstances even of enterprises in the same trade or business." 59 As further recognized: "No specific result can be provided for all situations, but rather the questions must be resolved on a case-by-case basis, consistent with the general operation of the arm's length principle." ${ }^{60}$

To assume that in arm's length dealings, unrelated parties would necessarily, in all markets, and at all times, include their stock option "costs" in a research and development joint venture arrangement is contrary to the basic mechanisms of arm's length dealings. As recognized by the OECD, "predetermined formulae are arbitrary and disregard market conditions, the

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particular circumstances of the individual enterprises, and management's own allocation of resources, thus producing an allocation of profits that may bear no sound relationship to the specific facts surrounding the transaction" ${ }^{\prime 61}$ - nor any notion of an arm's length standard. Assistant Secretary of the Treasury Samuels made the same point in 1994: "[T]he inflexible results obtained under a predetermined formula would not resemble the results under the arm's length standard, where the method used is tailored to the individual facts and circumstances., ${ }^{62}$

Nevertheless, in the newly proposed cost sharing regulations, Treasury has chosen to redefine this long-standing, internationally recognized objective criterion of the arm's length standard by administrative fiat. In sum, Treasury has opted precisely for the type of "one size fits all" fixed formula that it encouraged the international community to reject in the OECD Guidelines. The proposed regulations state that:

A qualified cost sharing arrangement produces results that are consistent with an arm's length result within the meaning of $\S 1.482-1(b)(1)$ if, and only if, each controlled participant's share of the costs (as determined under paragraph (d) of this section) of intangible development under the qualified cost sharing arrangement equals its share of reasonably anticipated benefits attributable to such development (as required by paragraph (a)(2) of this section) and all other requirements of this section are satisfied. ${ }^{64}$

Costs under paragraph (d) of the proposed regulations include, of course, stock-based compensation "costs" or value, as measured when the employee stock option is exercised, or alternatively, when it is granted.

There is no evidence arising from the behavior of uncontrolled parties to support the proposition that parties dealing at arm's length currently share the "cost" or value of stock-based compensation under their joint development arrangements. Indeed, whether the issuance of stock options creates a "cost" to the company or to the shareholders in the first place under generally accepted accounting principles has been a matter of some dispute for many years. ${ }^{65}$ One of the

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reasons for the lack of arm's length evidence and the accounting debate over the proper treatment of employee stock options is that it is unclear whether the employee stock options are an economic cost of the corporation issuing the options at all. ${ }^{66} \mathrm{At}$ issuance, the employee stock options create valuable incentive and agency effects that inure to the issuing corporation. Employee stock options align the interest of the employees and the shareholders (i.e., agency effects) and induce employees to work harder (i.e., incentive effects). The issuance of employee stock options has a potentially dilutive cost to the current shareholders, but this potential dilution occurs only if stock prices rise and employees exercise their options. To the extent that the benefit of the incentive and agency effects exceed the dilutive cost of the employee stock options, there is no net cost to the shareholders to grant the stock options. Since the adoption of Statement of Financial Accounting Standards No. 123 in 1995 (which coincided with the promulgation of the 1995 cost sharing regulations), the economic and accounting literature has continued the debate over whether the grant or exercise of employee stock options is an economic cost to either the corporation or the shareholders. The evidence to date shows that the benefits of agency incentive effects at least equals and may exceed the dilutive effect of employee stock options. ${ }^{67}$ Thus, employee stock option costs do not appear to have any net economic cost to the firm. ${ }^{68}$

Moreover, the exercise date measurement of the stock option inclusion of the proposed regulations is indefensible as a matter of economics. ${ }^{69}$ The exercise date measurement depends on the movements of the company's stock price, which may or may not relate to the success or failure of the research development project or the value of the underlying employee services. The effect of measuring the inclusion in the cost sharing pool by the spread on exercise of the options forces the cost-sharing participants to compensate their joint venture partners as if the costsharing participant wrote a call option on its joint venture partner's stock. Thus, the cost-sharing

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participant has full exposure to the increases in the joint venture partner's stock price no matter the results of the research development project. ${ }^{70}$ This is akin to "shorting" your business partner's stock. There is simply no way that unrelated joint venture partners would agree to take such a risk; in fact, they do not. ${ }^{71}$

Most fundamentally, unrelated parties in the marketplace, acting at arm's length, do not currently include stock option "costs" or value in their joint development agreements, regardless of how or when such "costs" or value are measured. No amount of hypothesizing by the Service or Treasury changes that empirical evidence.

Therefore, rather than "clarifying" the current regulations, the proposed regulations actually are based on unsubstantiated assumptions of arm's length dealings, representing a fundamental change in what it means to reflect the manner by which unrelated parties act at arm's length. The arm's length standard has never been a subjective test; it always has been an objective review of actual market activity - of actual observable results - to determine what unrelated parties acting at arm's length do. Section 482 certainly never has been normative and has never attempted to dictate what arm's length parties would do. This concept is reflected as well in the "best method" rule of Treas. Reg. § 1.482-1(c), which recognizes that the determination of an arm's length price must be based on all of the facts and circumstances, not on a priori concepts of arm's length behavior. "Thus, there is no strict priority of methods, and no method will invariably be considered to be more reliable than others." ${ }^{72}$ Just as there can be no strict priority of methods, there can be no a strict rule concerning what costs must be shared. Although the proposed regulations suggest a mere "amendment" to this best method rule, the amendment will eviscerate it.

## C. The Proposed Regulations Represent Poor U.S. and International Tax Policy And May, Ultimately, Whipsaw The Service

The proposed regulations represent inappropriate, if not irresponsible, U.S. tax policy. It is shortsighted if not improper for Treasury to abandon the very essence of the arm's length standard as a reaction to the temporary run-up in stock prices the United States experienced in the late 1990s. It is equally inappropriate to redefine by administrative fiat the arm's length standard based on unsubstantiated notions of how unrelated parties should address the sharing of stock-based compensation "costs" and without any sound and reasoned market data. Treasury should not undercut the arm's length standard with a shortsighted and temporary "fix" to a perceived revenue leakage as a result of fleeting market conditions. If Treasury requires taxpayers to include the "costs" or value of stock-based compensation in their cost sharing

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arrangements, even if similarly situated independent parties do not do so under similar circumstances - as the Service has admitted repeatedly - then Treasury has, by definition, directly contravened the arm's length standard.

The proposed regulations also represent inappropriate, if not irresponsible, international tax policy. By imposing formulary standards and ignoring the relevant economic facts, the proposed regulations are antithetical to the objective criteria utilized throughout the international community. This unilateral change by the United States will lead to international double taxation. The United States and its treaty partners have consistently subjected cost sharing arrangements to the arm's length standard like any other related party transactions. Among other items, most U.S. Treaties provide that if an adjustment is made in one country in accordance with the arm's length standard, then, in certain circumstances, the second country will make a correlative adjustment to take into account the negative effect of the first country's adjustment. ${ }^{73}$ Because the United States has never been able to establish that parties acting at arm's length share stock option "costs," United States treaty partners will likely reject any discussion of possible correlative adjustments. ${ }^{74}$ Taxpayers in the United States (as well as the U.S. Competent Authority) would find themselves in the unenviable and untenable position of having to explain why "unrelated parties acting at arm's length" means one thing in the United States and something quite different in the rest of the world.

The proposed regulations therefore create the real risk of placing the Service in a crossborder "whipsaw."गs If a U.S. taxpayer cost shares with a subsidiary in a treaty jurisdiction and if the U.S. taxpayer includes stock option "costs" or value under the proposed regulations, then, following traditional arm's length principles, the treaty partner may well through Competent
${ }^{73}$ See, e.g., Convention for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and on Capital, Art. 9 q2, December 31, 1975, U.S.-United Kingdom, TIAS 9682, 1975 U.S.T. LEXIS 605; Convention for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and on Capital, Art. 9 q3, September 26, 1980, U.S.-Canada, TIAS 11087, 1980 U.S.T. LEXIS 93; Convention for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and on Capital, Art. 10 §2, August 29, 1980, U.S.-Egypt, TIAS 10149, 1980 U.S.T. LEXIS 325.
${ }^{74}$ Louise M. Kauder, "The Unspecific Federal Tax Policy of Arm's Length: A Comment on the Continuing Vitality of Formulary Apportionment at the Federal Level," 60 Tax Notes 1147 (Aug. 23, 1993).
${ }^{75}$ See Treasury Department News Release F-1069, "Remarks by the Honorable Stanley S. Surrey, Assistant Secretary of the Treasury, Before the National Foreign Trade Council Convention, The Waldorf-Astoria Hotel, New York, New York, Wednesday, November 1, 1967, 3:00 p.m., EST," at 19 (Assistant Secretary Surrey cautioning that transfer pricing rules have "two sides of the coin" such that one-sided rules create whip-saw potential.); See also, Surrey, "Reflections on the Allocation of Income and Expenses Among National Tax Jurisdictions," 10 Law and Policy in Int'l. Business, 409, 414 (1978).

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Authority force the reversal of that inclusion. On the other hand, if a foreign corporation from a treaty jurisdiction cost shares with a U.S. subsidiary, then the corporation may very well push the same stock option "costs" or value into the United States via the U.S. subsidiary. Because the United States will be bound by its own published guidance, it will have to abide by the taxpayer's decision. In the end, the U.S. fisc loses. The whipsaw potential of the non-arm's length proposed regulations "underscores both the need for consistency and the care required in the formulation of appropriate rules." ${ }^{.76}$

In sum, the proposed regulations attempt to fit the "square peg" of stock-based compensation "costs" into the "round hole" of the arm's length standard. If promulgated as is, the proposed regulations will not be an amendment to (nor, most certainly, a "clarification" of) the arm's length standard. Rather, they will be directly contrary to the arm's length standard. For nearly 70 years, "In determining the true taxable income of a controlled taxpayer, the standard to be applied in every case is that of a taxpayer dealing at arm's length with an uncontrolled taxpayer. A controlled transaction meets the arm's length standard if the results of the transaction are consistent with the results that would have been realized if uncontrolled taxpayers had engaged in the same transaction under the same circumstances (arm's length result). ${ }^{י 17}$ Without any marketplace or real-world evidence that unrelated parties acting at arm's length share stock option "costs" or value, Treasury's proposal represents a formulary apportionment approach to section 482. That approach has been consistently rejected. The proposed regulations should be withdrawn.

## IV. IF NOT WITHDRAWN, THE COST SHARING REGULATIONS SHOULD PROVIDE FOR THE ALTERNATIVE OF A "STOCK-BASED COMPENSATION" SAFE HARBOR

## A. Taxpayers Should Be Given a Choice

SoFTEC recognizes that the Service is intent on amending the current cost sharing regulations in some manner. The Service has wanted taxpayers for some time to include stockbased compensation "costs" in their cost sharing agreements. Because unrelated parties acting at arm's length do not share stock option "costs," however, these proposed regulations should be withdrawn.

If Treasury insists on moving forward and requiring taxpayers to engage in conduct that is not arm's length, the proposed regulations should not "amend" the arm's length standard and jeopardize, among other things, the United States' relations with its treaty partners. Instead, if there is to be some change there should be, at most, a decidedly non-arm's length "stock based

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compensation safe harbor" within the cost sharing regulations. As discussed below, taxpayers who "opt in" to this safe harbor would receive benefits that would not be available to taxpayers who do not. If taxpayers wish to minimize the potential for tax controversies arising out of their cost sharing arrangements, then they may "opt in" to the safe harbor and include stock option "costs." If taxpayers wish to exclude stock option "costs" and are prepared to defend their noninclusion of such "costs" under the arm's length standard, they may "opt out" of the stock-based compensation safe harbor. Taxpayers can then balance the benefits and burdens of utilizing the safe harbor and proceed under the general cost sharing rules of Treas. Reg. §1.482-7. In either case, the decision would be the taxpayers, who would have the ability to plan their related party transactions accordingly.

This represents a "carrot and stick" solution to this issue. The cost sharing regulations should include a stock based compensation safe harbor, with sufficient incentives to encourage taxpayers to utilize the safe harbor. The incentives to utilize the stock-based compensation safe harbor should be two-fold. First, taxpayers who elect this safe harbor will have the benefit of knowing that the Service will not challenge their cost sharing arrangements. Second, if a taxpayer elects to utilize the safe harbor, the taxpayer's cost sharing arrangements for years prior to the effective date of the regulations should not be subject to examination or reallocation under section 482 at all. Taxpayers who opt in to such a non-arm's length safe harbor are giving up quite a bit. If the Service wishes to encourage taxpayers to take advantage of the safe harbor, then it must be willing to provide a substantial enough "carrot" in return. These incentives should make the benefits sufficient for taxpayers to opt in to the new safe harbor thereby substantially improving the responsiveness of the new cost sharing regulations to the stated goal of reducing disputes over the development and exploitation of intangible property between related parties.

Nevertheless, some taxpayers will wish to enter into cost sharing arrangements on terms that they believe to be arm's length terms which do not include stock option costs. These taxpayers have the right to do so under both section 482 and United States tax treaties. The costs that are shared under such arrangements must be on terms that are consistent with the behavior of unrelated parties acting at arm's length, as determined under the general arm's length principles of Treas. Reg. §§ 1.482-1 and 1.482-7. ${ }^{78}$ These taxpayers will forego the repose of the safe harbor for stock-based compensation with the full knowledge that the Service may challenge the arrangement.

## B. The Safe Harbor Regulations Should Be Easily Administered

If the Service creates a stock-based compensation safe harbor within the cost sharing

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regulations, the safe harbor regulations should be made more simply administrable. The carrot and stick approach that we advocate requires that the "carrot" be sufficiently desirable. All safe harbors involve trade-offs and if the benefits of using the safe harbor are too little, taxpayers will not do so. A taxpayer's decision to utilize the proposed stock-based compensation safe harbor will be based in part on the role that stock options play within the company and the expected future performance of the company's stock. Both of these factors are subject to change over time and therefore, the decision to utilize the stock-based compensation safe harbor should not be irrevocable. Instead, while elections to use the stock-based compensation safe harbor should be binding for some period, taxpayers must be allowed unilaterally to opt out of the safe harbor thereafter at their own discretion.

In addition, the method by which the "cost" or value of stock-based compensation is included in the cost sharing pool should be amended. In a safe harbor context, the measurement and timing methods of Prop. Treas. Reg. § 1.482-7(d)(2)(iii) could perhaps be used notwithstanding the inherently flawed assumptions required that would make the use of such rules arbitrary, capricious, and unreasonable outside of a safe harbor context. Taxpayers should also be permitted to use any reasonable method to value the costs associated with their stockbased compensation. To the extent that taxpayers elect to value their stock options at grant date under the same terms as for financial statement purposes, the proposed regulations should also allow taxpayers to make an annual determination regarding whether individual employees actually provide services related to the intangible development area. The proposed regulations, which assign stock options to the cost sharing arrangement based on the employees' responsibilities on the grant date, do not result in a clear reflection of intangible development costs. ${ }^{79}$ Employees frequently transfer back and forth between positions that involve the development of intangibles and positions that do not, and their position on the grant date can result in an arbitrary allocation of expenses. For financial statement purposes, companies may amortize the "cost" of stock options over the vesting period of the option, matching the "cost" to the services provided by the employees. Permitting taxpayers to make an annual determination will result in a more accurate determination of costs. Thus, under such methodology, a taxpayer is required to include the "cost" in the pool in an amount equal to the financial statement amortization only for options vesting while the employee works in the intangible development area. Taxpayers seeking to reduce the administrative burden of making annual determinations on an employee-by-employee basis should be allowed to elect a one-time determination on the grant date as to whether the employee provides services related to the intangible development area.

## V. TRANSITION RULES

The final regulations should also include appropriate transition rules involving the treatment of stock options for periods preceding the effective date of the regulations and

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permitting taxpayers to conform their existing cost sharing arrangements to the new regulations.
The Treasury Department and the Service should make clear that all taxpayers, regardless of whether they elect the stock-based compensation safe harbor, are not, and will not be, required to include the value or "cost" of employee stock options in their qualified cost sharing agreements for years subject to the 1995 cost sharing regulations, i.e. for years preceding the effective date of the final new cost sharing regulations. Treasury should explicitly recognize that the proposed regulations represent a fundamental change to its traditional approach to section 482. In fact, had the Service been able to prove that arm's length parties actually share these costs, it would not have needed these proposed regulations in the first instance. Taxpayers have relied on the known lack of any evidence that unrelated parties actually share stock option costs and any explicit statement in the regulations requiring that these costs be shared. For open tax years preceding the effective date of the regulations, the Service faces the risk that Xilinx, or another taxpayer, will prevail in court on the issue of whether arm's length parties share stock option "costs." An adverse court decision under the arm's length standard would effectively preclude the Service from achieving its objective of taxpayers sharing stock option "costs" or value under any theory. Consequently, the Service should use the final regulations as an opportunity to announce that it will no longer litigate this issue with respect to prior years.

As currently proposed, the amendments to the regulations will generally be effective for taxable years beginning on or after the date that final rules are published in the Federal Register. It is not reasonable to expect taxpayers to implement the amended regulations on such short notice.

It will take time for taxpayers to decide whether they wish to conform their cost sharing arrangements under the proposed safe harbor, chance controversy with the Service, or use some alternative means of developing and exploiting intellectual property. It will take time for taxpayers to amend their cost sharing agreements to conform to the proposed safe harbor or to implement other arrangements. Some taxpayers have established complex international structures that they may wish to restructure if they wish to avoid controversy with the Service but keep their related party arrangements arm's length (i.e., not arbitrarily include stock option "costs" in their cost sharing arrangements). This process cannot be done overnight and therefore the final regulations should provide an appropriate transition period. When the current cost sharing regulations were adopted, taxpayers were granted a one-year transition period in which to conform their cost sharing arrangements to the regulations. ${ }^{80}$ As a result of the complexities of some taxpayer's structures, some taxpayers may require as long as two years to restructure. Therefore, taxpayers should be granted a two-year period after the finalization of the regulations to conform their existing cost sharing arrangements to include stock option "costs" if they wish to take advantage of the safe harbor being offered, or weigh their litigation risks to either

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continue their arrangements as currently structured or restructure their international operations to avoid controversy with the Service.

## VI. CONCLUSION

Requiring taxpayers to include the "cost" or value of employee stock options in a qualified cost sharing arrangement, despite no evidence that arm's length taxpayers engage in similar behavior, is simply incompatible with the arm's length standard. Joint research ventures, joint product development ventures, or joint marketing agreements are all examples of commercial activities that are undertaken at arm's length by unrelated parties every day in the marketplace. The arm's length standard requires no more and no less than that taxpayers conduct their related party cost sharing arrangements in the same manner as unrelated parties. The proposed regulations violate this core principle and, in so doing, contravene the arm's length standard as currently embodied in section 482, the Treasury regulations, the OECD Transfer Pricing Guidelines, and United States income tax treaties. Consequently, the proposed regulations are of dubious validity and should be withdrawn. If the Service wishes to encourage taxpayers to include stock-based compensation "costs" or value in their related party cost sharing arrangements, then it should encourage taxpayers to do so by creating a non-arm's length administrative safe harbor within the cost sharing regulations, while still recognizing that cost sharing is a real world commercial practice that is subject to general arm's length principles.

We appreciate the opportunity to submit these comments.

Respectfully submitted,


Bruce A. Cohen


## EXHIBIT A

## STATUS OF STOCK OPTIONS IN SHARED-COST CONTRACTS

REPORT OF
PROFESSOR WILLIAM J. BAUMOL
PROFESSOR BURTON G. MALKIEL
April 8, 2002

# STATUS OF STOCK OPTIONS IN SHARED-COST CONTRACTS <br> REPORT OF <br> PROFESSOR WILLIAM J. BAUMOL AND <br> PROFESSOR BURTON G. MALKIEL 

April 8, 2002

We have been asked to describe the implications of economic analysis for the proper treatment of stock options issued by one of two firms that have entered into a costsharing agreement, in the assignment of cost responsibility between the two firms under that agreement. The crucial issue, patently, is whether in the absence of an explicit provision on the matter, for tax purposes it should be deemed that those options are to be considered at all in the apportionment of costs under the contract. In addition, we have been asked to analyze, as is the contention of the IRS, that such options should be evaluated in terms of their expected ex post value or their spread on exercise, and that this estimated value should be treated for tax purposes as a portion of the total cost that is to be shared between the two firms, in exactly the same manner that the already-shared costs are currently divided under the terms of the agreement.

In particular, we have been asked to consider the following issues:

1. Whether the value of employee stock options can be estimated to a reasonable degree of economic certainty.
2. Whether, to a reasonable degree of economic certainty, there is any measurable economic cost to the firm relating to the grant of employee stock options.

Whether, to a reasonable degree of economic certainty, the amount of the section 83 tax deduction taken by a firm relating to the spread upon exercise of its employee stock options constitutes an economic cost to the firm.
4. Whether, to a reasonable degree of economic certainty, Xilinx's exclusion of the value or "cost" of employee stock options from its agreement to share development costs with its affiliated entities was consistent with arm's-length dealings by unrelated parties in the marketplace.

To analyze these issues, here we will first examine the two primary roles that are played by stock options in the modern firm - these roles having very different implications for the matter at issue. We will also investigate whether there exists a method for evaluation of such stock options that is reasonably reliable and whose results are reasonably unambiguous. Finally, we will comment on the implications of the arm'slength standard, a standard entirely defensible in terms of economic analysis, for the contentions of the IRS and the Commissioner of Internal Revenue.

## Summary of Approaches and Conclusions

We will explore the pertinent issues in three ways: in terms of economic analysis, via a review of relevant earlier studies and, finally, on the empirical evidence, that pertinent to the accuracy of valuation of options and that pertinent to arm's-length contracts in reality.

The analytical material will lay out, with the aid of the economist's approaches, the character and functions of stock options, the nature of any associated costs to the firm, their distinction from costs to current stockholders, and the appropriate role of stock
options, if any, in a contract between two firms entailing their sharing of the costs of certain activities of one or both of those enterprises. This last item will play a key role in our analysis of the arm's-length evidence pertinent to the IRS contentions.

The examination of earlier studies will investigate two issues, first, whether the evidence those studies provide supports the contention that stock options do constitute a cost. At least equally important, we will also examine whether these studies, as well as the available methods of empirical analysis of options make it possible to obtain accurate and unambiguous estimates of the true values of those options and corresponding estimates of any associated costs.

The empirical materials, together with the analysis of the character of cost-sharing agreements and the pertinence of the issue of stock options to employees, will be used to draw conclusions on three related matters: first, why the arm's-length standard is a defensible basis for analysis of issues such as that before the court, second, whether the logic of the issue does or does not lead to the expectation that firms entering cost-sharing agreements at arm's-length will include stock options as entailing costs to be shared and, third, whether in practice there exists evidence that such inclusion is or is not universal or even usual.

Our analysis will lead us to the following conclusions:

## 1. The value of long-term stock options granted to employees cannot be

 estimated from the economic evidence with a reasonable degree of certainty. The disciplines of economics and finance do not provide a method by which the value of long-term employee stock options can be measured with any degree of accuracy, particularly given the long-term nature of such options. The Black-Scholes model, themost sophisticated tool available for the purpose, works extraordinarily well for periods up to three months in maturity. But even for exchange traded options, the Black-Scholes model works less well for options with maturities from six months to one year. And for longer periods (Xilinx's employee stock options had ten year lives) it is inherently unreliable and inaccurate for reasons that will be explained.
2. There is no measurable net economic cost to a firm related to the grant of employee stock options. Stock options, when provided to employees generally play at least one of two roles. They can constitute a partial substitute for payment of salary, wages or compensation, and/or they can help to eliminate or at least to alleviate one much studied problem in corporate governance, the possibility of divergence between the interests of the members of corporate management and those of the stockholders. For, by making the real earnings of the recipient of the options contingent on the performance of the firm's equity, stock options can help to align the interests of these two groups. Furthermore, the employee stock options may provide significant beneficial incentive effects. It is important to distinguish between a cost to a given body of stockholders and a cost to their firm. Even though the firm is the property of the body of its stockholders, a newly issued stock option, if it does nothing else, merely redistributes some of the firm's future earnings between the initial holders of its stocks and the new stockholders created by the options. Unlike an increased wage payment that, ceteris paribus, reduces the firm's net earnings, a new employee stock option that leaves all else unaffected preserves the firm's earnings unchanged. If there are any added returns that result from an incentive provided by the options they do not constitute a cost offset but a
net addition to the firm's total future earnings. Where such enhanced earnings are present, all stockholders may benefit from the provision of the options.

To the extent that employees accept lower cash compensation as a result of the grant of employee stock options, such grants help to preserve the firm's cash. To the extent that the employees later exercise their options after a rise in the stock price of the firm, the employees pay the firm the fair market value of the firm's stock price at the time of the option grants. In neither event does the firm incur any direct cost. Even more important, the incentive effects of employee stock options may improve the performance of the firm by causing employees to work harder or more efficiently and to align the interests of management and shareholders.

The grant of employee stock options, however, has a detrimental dilutive effect on the corporation's shareholders. If the shareholders and the marketplace at large were to consider the dilutive effects of employee stock option grants to outweigh the benefits to the firm of such option grants, then the price of the firm's stock would fall and this would indeed result in an economic cost to the firm - an increase in the firm's equity cost of capital. On the other hand, if the shareholders and the market were to consider the positive benefits of the option to outweigh the dilutive effects, then the firm's stock price would not fall but would remain unchanged or possibly even increase. If this latter expectation were in fact shared by shareholders and the marketplace, then the grant of employee stock options would have no cost to the firm because the firm's equity cost of capital would remain the same or even decrease as a consequence of such grants.

The issue whether the grant of employee stock options affects stock prices is inherently empirical. There exists a considerable body of economic literature that
investigates the effects of employee stock options on the position of stockholders.
Though many of these studies are carried out dispassionately and by highly competent investigators, the complexity of the issues they study has prevented them from yielding unambiguous answers. By and large the studies have indicated that beneficial effects of employee stock options equal or exceed the dilutive effects, thus indicating that stockholders do benefit from the grant of employee stock options. However, there is at least one unpublished working paper that has reached the contrary conclusion, though, like many of the other studies, it is characterized by serious imperfections. ${ }^{1}$ After dealing with some statistical issues in the treatment of the data, we found that the calculated results of the unpublished working paper were consistent with the remaining body of empirical work. ${ }^{2}$ All in all, it is our conclusion that this body of investigation has produced no evidence that the issue of stock options generally has detrimental effects upon stockholders - that is, the empirical analyses show that the beneficial effects of stock options appear at least to equal the dilutive effect on shareholders. Thus, the empirical research to date supports the conclusion that there is no measurable economic cost to shareholders - or to the firm - related to the grant of employee stock options.

## 3. The amount of the section $\mathbf{8 3}$ tax deduction taken by a firm related to the

spread upon exercise of its employee stock options corresponds to no economic cost
to the firm. It is widely accepted by economists that the stock prices generally

[^40]incorporate all pertinent and publicly known information. ${ }^{3}$ Under applicable accounting rules, publicly reporting firms must fully disclose information related to their grants of employee stock options. Thus, the stock markets must already anticipate the exercise of the "in the money options" (i.e., options with a strike price less than the current market price of the stock) and the dilutive effect of such exercises must be expected already to be reflected in the stock price. In our judgment the issue of whether there is an economic cost to the firm relating to employee stock options economically must appropriately be measured at the time of option grant. The problems that arise in attempting to separate the dilutive effects from the incentive effects at the time of exercise are particularly acute. Indeed, we believe that the spread on exercise is more likely at least in part to reflect any beneficial incentive effects of the employee stock options than any dilutive effect.

## 4. The economic evidence clearly supports the conclusion that Xilinx's

 exclusion of the value or "cost" of employee stock options from its agreement to share development costs with it affiliated entities was entirely consistent with arm'slength dealing by nurelated parties in the marketplace. Economic analysis supports the use of an arm's-length standard for defensible evaluation of any cost and the allocation of its coverage responsibilities among the relevant parties. The unbiased behavior of markets in which transactions are entered into voluntarily distinguishes true economic costs from the accounting fictions that unfortunately often become unavoidable when it is attempted to evaluate costs without reliance upon the guidance of actual market3 This statement reflects what is known as the "weak form" of the Efficient Market Hypothesis ("EMH"). Many leading economists have contended under the "strong form" of the EMH that stock prices anticipate all information, regardless of whether the information is publicly available or widely known.
behavior. For the current issue this means that to determine defensibly whether stock options constitute costs that are to be encompassed in cost-sharing agreements between firms should be investigated on the basis of observation of the pertinent arm's-length transactions. Where two firms engage in a cost-sharing agreement at arm's-length it is not to be expected that rational managements will include stock options as an element of the costs that are to be shared. The most obvious reason is that there is no reliable way to measure the value of those options, much less any cost that can defensibly be associated with them.

But there is more than that. The inclusion of stock options as a cost to be shared, if the option's "cost" is to be evaluated on the basis of the value of the issuing company's stock at the date the option is exercised, means that one of the partner enterprises commits itself to an unlimited liability whose future magnitude depends on the stock price of the other party to the agreement. If it were to do so it would in effect be writing a naked call option on the stock of its cost-sharing partner, agreeing to compensate the partner for the value that stock happens to take on some future date, a value and date unknowable at the time of adoption of the cost-sharing agreement. In perhaps simpler terms, this situation is akin to selling short the stock of the firm's business partner. While one would generally hope that one's business partner is successful, under the IRS's contention, the higher the business partner's stock price climbed, the more the other business partner's development "cost" would climb - even if the development project were a complete failure and the stock price rise had nothing to do with the joint development activities.

Even worse, employee stock options often do not vest for a period of years and can remain outstanding for still many additional years. (Xilinx's employee stock options
vested over four to five years and did not expire for ten years.) The IRS is apparently contending that option exercises in the current year - which necessarily relate to options granted in prior years - somehow are related to the costs of the jointly shared development activities in the current year. As shown by the empirical studies, there is no general and measurable net cost to a firm related to employee stock options. The IRS's exercise date hypothesis has the further insurmountable logical gap of trying to connect the spread on exercise of options granted in prior years to current year development efforts. There is simply no logical or economic basis for such an assertion.

For all these reasons, economic analysis leads us to conclude that it would not be rational for the cost-sharing firms to include stock options in their agreement. There exist many actual joint development cost-sharing agreements that include no such provision, and we have found none in which arm's-length parties actually include the value or "cost" of employee stock options in practice. Even more significant, we understand that the IRS too has conceded that it is unable to find any such example. In sum, the empirical research shows that there is no measurable economic cost related to employee stock options. Even if it were valid to claim that the value of employee stock options is in some sense an economic cost, the best tools of economics and finance are unable to value employee stock options with any degree of accuracy or economic certainty. Economic analysis leads us to conclude that one would not expect unrelated parties dealing at arm's-length to agree to share the value or any purported "cost" of stock options, and that to do so on the basis of an ex post facto spread upon exercise would be particularly risky and irrational. And in practice, consistent with our economic analysis, not a single example can be found where unrelated parties in the marketplace agree to
share the value or purported costs of employee stock options. At the very least, it must be concluded that Xilinx's actions in excluding the value or "cost" of employee stock options from its cost-sharing arrangement were entirely consistent with the theory and practice of arm's-length dealings by unrelated parties in the marketplace.

## The Two Purposes of Stock Options

There may be many considerations that lead the management of a firm to undertake an issue of stock options to its employees. However, the literature recognizes two primary objectives of such a step and these must be understood if the relation between this action and cost is to be comprehended. The first of these two purposes is to provide the firm a substitute for some part of the compensation the enterprise would otherwise have to provide to the recipient employees. The second purpose is to solve what economic analysis describes as the principal-agent problem -the possible divergence between the interests of the management of a corporation and those of its stockholders.

The first of these purposes is straightforward. For example, consider a firm that is strapped for cash and subject to other financial difficulties. Suppose the firm locates an experienced executive with an outstanding track record in dealing with such problems. Such persons are not obtained cheaply, and the cash poor firm may not feel itself in a position to commit itself to providing the compensation needed to induce this individual to join it. Instead, it can offer that person stock options in lieu of a substantial portion of the compensation demanded. An agreement between the company and the individual can
then be sought on the quantity of options that will serve as an appropriate equivalent of the foregone compensation.

These options then serve as a substitute for cash payments to the individual in question. But as we will see presently, their status as costs to the firm are very different.

The second of the two primary purposes of the issue of stock options is very different, though such an issue may well be undertaken to serve both objectives. As early as the 1930s, in the classic study of A.A. Berle, Jr. and G.C. Means, The Modern Corporation and Private Property (Macmillan N.Y. 1932), it was recognized that the modern corporation is characterized by separation between ownership and management. Unlike the minuscule enterprise that is overseen by its proprietor, the large corporation's managers are, as it were, hired help who, if the arrangements are inappropriate, may choose to pursue their own agenda rather than those of the true proprietors of the firm. A trivial but obvious example is nepotism in hiring. There are also reasons for believing that management benefits from expansion in the volume of the firm's sales or its market share even if it entails some sacrifice of the profits of the enterprise, that are presumably the stockholders' primary concern.

Here, economists speak of the stockholders as the principals of the firm and the members of management as the agents of those principals. Clearly, without suitable precautionary measures, the principals have good reason for concern about the temptations for the agents, consciously or unconsciously, to give priority to their own interests rather than those of the principals. The recognized way to deal effectively with this dilemma is to modify the nature of the payoffs offered to the agents in such a way
that brings their interests more closely into line with those of the principals. That is precisely what stock options are designed to do.

Stock options can achieve this result in a straightforward manner. Because the recipient of the options benefits from them only to the extent that the price of firm's stocks rises above its value at the time the options were issued, the recipient members of management are given the incentive to strive as hard as they can to increase the value of those stocks. But that is precisely what serves the interests of stockholders.

Stock Options, Costs to the Firm and Cost to the Stockholders
Is there a clear-cut cost, or even any net cost to the firm entailed in the issue of stock options to employees of the firm? Before getting to the heart of the matter, it is important to note that the issue of the options for either of the two purposes just described has an inherent offset that is beneficial both to the firm and its stockholders. This is obvious if the options are provided to offer the desired incentives to management - to deal with the principal-agent problem. If the options induce management to work harder - to create better products, to cut costs, to promote sales, or otherwise to contribute to profits and to the value of the securities of the corporation - then they clearly provide a benefit to stockholders. At most, any cost to stockholders that options are said to entail must be lower than that of any equivalent compensation that provides no such incentives.

This is even true of options whose only purpose is as a partial or total substitute for some direct employee compensation payment. The two forms are inherently different from the point of view of the interest of stockholders. The acceptance of options in lieu of direct compensation payment has two offsetting benefits to stockholders. First, it can
reduce pressures on the firm's limited supply of cash. Particularly for a firm seriously short of cash or one that can obtain cash only on very disadvantageous terms, this benefit is obvious. But there is a second offsetting benefit to stockholders, whether or not the firm is significantly cash constrained. For an option transfers risk from the firm to the individual who obtains the option. That person has accepted an uncertain future payoff, one dependent on future stock prices, in lieu of a guaranteed stream of payments. The guarantee is a risk that would have been borne by the stockholders if the substitution had not occurred, because so long as the individual continues to be employed he would have to be paid whether the firm prospers or does not. But an option will be exercised and the individual will receive the corresponding payment only if the enterprise prospers. If it fails, it is the option holder who bears the corresponding portion of the consequences and the stockholders are relieved completely of this risk.

But these offsets are only part of the story. There are two other considerations that go much further and undermine straightforward cost interpretation. First, there is the possibility that the incentive and agency effects of stock options may be so substantial and favorable to the stockholder that they generally constitute a net benefit rather than a cost. As will be shown here later, much of the evidence is indeed consistent with such a conclusion. Many of the available studies indicate that stockholders predominantly are net beneficiaries when firms choose to issue options to their employees. We must admit here, however, that the empirical evidence is neither unambiguous nor conclusive as to whether there is a net benefit to shareholders from the issuance of employee stock options (i.e., that the beneficial effects exceed the negative dilutive effects by a statistically significant amount). While the preponderance of the empirical investigations do reach
the conclusion that in general employee stock options offer gains to stockhoiders, we cannot claim that a statistically significant affirmative net benefit has been shown beyond any reasonable doubt. We are very comfortable in concluding, however, that there is no measurable net economic cost to the firm or its shareholders from the issuance of employee stock options (i.e., to a reasonable degree of economic and statistical certainty, the positive effects of employee stock options are at least equal to the negative dilutive effects to shareholders).

The final consideration here, however, is the most conclusive, though perhaps the least widely recognized. This is the fact that the issuance of employee stock options must be recognized as only constituting a redistribution of benefits between initial stockholders and the new prospective stockholders who have obtained this position by their receipt of the options. It does not result in any reduction in the overall size of the firm's total earnings pie. Rather, it only affects the way in which that pie is sliced and divided up among future shareholders. And that is so even if the options lead to absolutely no change in the performance of management and the firm's future prospects. This is markedly different from the effect of, say, a rise in the cash wages of the company's current employees which, if it does not affect their performance, must result in a net reduction of the total profits of the firm. The latter is a cost to the firm in that, without offsetting benefits, it reduces the size of the earnings pie. The stock option issue, in contrast, leads to no such reduction in the earnings of the firm.

The point in all this is that it would be erroneous to take the cost of a direct expenditure such as a cash wage cost to be equivalent to that of an option And there is simply no valid empirical evidence showing that the grant or exercise of an employee
stock option constitutes a measurable economic cost to the firm. The empirical literature to date shows that the issuance of employee stock options normally either has no measurable cost to the firm or shareholders, or that such an issue actually benefits the firm and its shareholders. It simply cannot defensibly be claimed that the issue of employee stock options is a normal cost to the firm from the empirical research performed to date.

## Can We Measure Option Expense With Any Degree of Certainty?

It is frequently suggested that developments in financial asset pricing theory now make it possible to measure the value of stock option grants with reasonable precision. A remarkable Nobel Prize winning contribution by the late Fisher Black, Myron Scholes and Robert Merton is the construction of an option pricing model-commonly known as the Black Scholes model. ${ }^{4}$ This model is now widely used by option traders to price traded options at the Chicago Board Options Exchange and other exchanges. This model does an excellent job of predicting the actual prices at which the most active short-term options actually trade in the market.

## Some Aspects of Option Pricing Models

Since, in the discussion that follows, it will be necessary to refer back to some aspects of the option pricing model, it will be useful here (and in the appendix-A Primer on Options) to review certain concepts. A call option gives the owner of the contract the right but not the obligation to purchase a share of company stock at a fixed price (the

[^41]exercise or strike price) on or before a certain date (the expiration date). The buyer of an exchange-traded option pays an amount called the option premium to obtain such a right. The premium (less commission) is given to the option seller (or writer) who takes on the obligation to sell the shares to the option buyer at the exercise price.

Intuitively, we can understand what determines the size of the option premium. Premiums will be larger the longer the time to expiration since more time will be available for an event favorable to the option holder to occur. Premiums will be larger the higher the price of the underlying stock. Obviously an option on a one dollar stock can't be worth more than one dollar (otherwise, you would just buy the stock for one dollar) while a three month option on a hundred dollar stock can be worth five dollars or more. Interest rates also influence option premiums since the option buyer puts up less money than the person who buys the stock outright.

## The Cucial Role of Volatility

The most important factor influencing option premiums is the volatility of the underlying shares. Options are worth more if the underlying stock is more volatile. To see why this is so, consider the following example: Suppose we have two stocks currently selling at $\$ 30$ per share. Suppose that Stock $\mathbf{A}$ is very volatile and that in three months time each of five future values is equally likely ranging from a low of $\$ 10$ to a high of $\$ 50$. Stock $B$ is less volatile and the equally likely range of future values runs from $\$ 20$ to $\$ 40$. Consider now how much a 3 month call option with an exercise price of $\$ 30$ is worth. At expiration, the option will be worth the difference between the actual stock price and the $\$ 30$ exercise price. Thus, if the stock sells at $\$ 30$ or less, the call option expires worthless. But if the stock sells at $\$ 40$ at the end of the period, the option
has an "intrinsic" value of $\$ 10$ since the holder could simultaneously exercise the option at $\$ 30$ and sell the stock in the open market at $\$ 40$. We then can see clearly from the exhibit below that in the case where market prices go up, the high volatility Stock $A$ has larger option payoffs than the less volatile Stock B.

The Value of Volatility

| High-Volatility | Stock A |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock price | $\$ 10$ | $\$ 20$ | $\$ 30$ | $\$ 40$ | $\$ 50$ |  |
| Option payoff | 0 | 0 | 0 | 10 | 20 |  |
| Low-Volatility | Stock B |  |  |  |  |  |
| Stock price | $\$ 20$ | $\$ 25$ | $\$ 30$ | $\$ 35$ | $\$ 40$ |  |
| Option payoff | 0 | 0 | 0 | 5 | 10 |  |

It follows then that option buyers will pay more for options on more volatile stocks. And indeed they do. The standard option pricing formula developed by Black and Scholes takes account of this. The most important variable from which options derive value, according to the Black-Scholes model, is the volatility of the underlying stock.

## The Problem of Estimating Volatility

We present in the appendix a discussion of the principles underlying the BlackScholes option pricing model. While the mathematics behind the model is advanced and complex, the appendix shows that the model is a natural extension of the "binomial option pricing model." The important point to remember is that the future volatility of the underlying stock plays a crucial role in the model and that estimating future volatility
is extremely difficult and becomes increasingly even more difficult the further out in time one attempts to estimate volatility. The Black-Scholes option pricing formula can provide reasonably good measures of the value of exchange-traded, short-term put and call options. Variants of this model produce value estimates for short-term (such as one to three months) options that are not only extremely close to one another, but that also track with considerable precision the actual market prices of these instruments. This is so because recent past volatility tends to be reasonably persistent over the short term. It is important to point out, however, that for longer-term (such as six months to one year) exchange-traded options, the Black-Scholes formula can produce a wide range of estimates, and actual market prices of traded instruments vary substantially from their predicted values. Unfortunately, volatility over the longer term is notoriously difficult to estimate and the longer the time the option has to run, the greater the difficulty in arriving at an estimate of its value. This inherent limitation in option pricing models is exacerbated when one moves from so-called "long-term" exchange traded options (i.e., six months to one year) to employee stock options with lives measured in years rather than months. (Xilinx employee stock options were ten year options.)

The problem stemming from the fact that stock volatility is not constant over the longer term has long been recognized by market practitioners. Traders tend to put less reliance on Black-Scholes estimates as the time to expiration increases. The problem is widely recognized and is discussed in texts on option pricing such as the leading text by John Hull:

Pricing errors caused by a nonconstant volatility increase as the time to maturity of the option increases. A nonconstant volatility has relatively little effect when the time to maturity is small, but its effect increases as the maturity of the option increases. The reason is easy to understand. Just as
the standard deviation of the stock price distribution increases as we look farther ahead, so the distortions to that distribution caused by uncertainties in the volatility become greater as we look farther ahead. ${ }^{5}$

We see that even for longer-term exchange traded options (i.e., six months to one year), the Black-Scholes formula does not yield precise estimates.

## Complications Arising From the Special Features of Employee Stock Options

When one adds the complications that executive stock options do not vest immediately and are subject both to forfeiture and restrictions on the sale of the option stock, it is virtually impossible to put a precise estimate on the option's value. Each of these factors violates the assumptions underlying the Black Scholes model. Moreover, employee stock options generally have durations of five to ten years (the Xilinx options have 10 year lives) and, as noted above, the Black-Scholes formula has considerable difficulty even in pricing the longer-term six month to one year exchange-traded options. Finally, unlike exchange-traded options, employee stock options cannot be sold by the employee, violating one of the key assumptions of the Black-Scholes model.

It is widely recognized in the finance literature that the Black-Scholes model is unsuitable for employee stock option valuation, as noted in a recent article by Richard Friedman:

Several inherent problems plague the Black-Scholes model in determining employee stock option values. For example, it was developed for Europeanstyle options, which are exercisable only at their expiration date with no vesting and transferability restrictions. Almost all U.S. employee stock options can be exercised at any time after vesting (usually by year seven or eight) and are rarely transferable. In addition, employee stock options can almost never be sold or traded, unlike publicly traded options. ${ }^{6}$

[^42]
## Adjusting Black Scholes for the Special Features of Employee Stock Options

It is, of course, possible to attempt to adjust the Black Scholes model to account for many of the special features of employee stock options. Mark Rubinstein has proposed a rather ingenious model to do this. ${ }^{7}$ The model, however, uses 16 input variables, many of them difficult to estimate, and a wide range of estimates can be derived from the model. It is particularly important, as Rubinstein expressly states in his article, that he is not attempting to take into account incentive effects of the employee stock options, but rather is merely seeking to value the options granted to the employees. Rubinstein points out that the inherent subjectivity of the estimates required can allow firms to report values half or double those for other similarly situated firms. Rubinstein also considers use of "minimum value" accounting- the primary method suggested by the Financial Accounting Standards Board for private companies. But even use of this minimum value method can lead to demonstrably inconsistent results for similarly situated companies as the terms of the options can easily alter the features of the employee stock option grant in a way that uses zero as the minimum option value. ${ }^{8}$

We conclude that it is impossible to measure the value of options granted to employees with any degree of precision or economic certainty.

## Exercise Date Accounting

There is, of course, one valuation approach that would appear to avoid the ambiguities in valuation that have been discussed above. Under this approach, which we

[^43]understand to be the approach of the IRS in this case as well as in a January 25, 2002 directive issued by the IRS to its agents, the "cost" would be recorded as the difference between the market and exercise prices on the date at which the executive exercised his or her options. ${ }^{9}$ This approach obviously has the advantage of avoiding the inherent limitations of the option pricing models and avoiding the need for estimates of long-term future stock price volatility. The problem with this exercise date method is that while one obtains a precise calculation, it is unclear what this calculation measures. What is clear, however, is that this exercise date calculation does not represent an economic cost to the firm.

As discussed above, employee stock options uniquely are associated with both beneficial and detrimental effects upon shareholders. These effects are inextricably intertwined in that the positive incentive effects arise precisely because the employee stock options transfer ownership to the employees (and hence dilute the holdings of existing equity claimants) if stock prices rise and the options are exercised. Shareholders' willingness to approve employee stock option plans is evidence of an expectation by shareholders that the size of the pie (i.e., the value of the firm) will grow faster than the percentage of the pie owned by current shareholders will shrink. Some researchers have attempted to estimate and separate the expected effects of the stock options, presumably including both the dilutive effects and the agency and incentive effects at the date of grant. Many of them include analysts' long-term earnings growth forecasts as variables in the analysis. But such growth is itself apt to be a consequence of the incentive effects of the employee stock options so that the statistical calculations will

[^44]associate the incentive effect with the growth forecasts, leaving only the dilutive effects to be attributed to the options. In other words, the calculation inadvertently attributes to the options all of their detrimental dilutive consequences, but not all of their benefits. The net result is that the calculation is distorted toward giving the appearance that options benefit initial stockholders less than they really do.

But the problem of separating the dilutive effects of employee stock options from their incentive effects becomes even more acute when considering the recording of costs at the time the options are exercised. The IRS's exercise date theory presupposes that the entire increase in stock value is a measure of the "cost" of the options. The empirical research shows, however, that the shareholders' and the market's expectations at the time of grant - ex ante - are that the positive incentive effects will at least equal the dilutive effects. Thus, the increase in stock price is decidedly not the dilutive effect on shareholders - it represents that increase in stock price that was expected at least to offset the dilutive effects of the option grant. If in fact the positive and negative effects are perfectly in balance, there is no net cost to the firm. If, as some of the studies suggest, the positive incentive effects normally outweigh the dilutive effects, then there would be a net benefit rather than a cost to the options. The point is that simplistic use of the spread on exercise as a measure of the economic cost to the firm ignores the fact that at least part of the change in stock price is likely to result from the positive incentive effects of employee stock options. Further, the stock price can also rise for a host of reasons unrelated to employee stock options.

[^45]Moreover, we suggest that the spread upon exercise is far more likely to measure the positive incentive effects of the options as well as their economic cost. When employee stock options are substantially "in the money" (by which we mean that the current stock price is well above the option price), a reasonably efficient stock market will expect that the extra shares certainly be issued and so the dilution cost will already be reflected in the stock price. In part, the subsequent increase in stock value will reflect whatever positive incentive and agency effects were created by the option grants themselves. It is certainly not defensible to consider this difference an economic cost to the firm or its shareholders.

Further, there is an obvious break in the logic chain of the IRS's position underlying its exercise date criterion. Employee stock options generally vest over a period of time and can remain outstanding for many years. The Xilinx employee stock options at issue in this case vested over five years and had ten year lives. The IRS contention is that current year spread on exercise - which necessarily relates to options granted in earlier years - is somehow related to the costs of jointly shared development projects in the current year. The problems besetting this approach are obvious. As a simple example assume that in years one through five, Firm A grants stock options to its employees with five year vesting and 10 year life. In years two and three, Firm A's stock price doubles. In year six, Firm A and Firm B enter into a cost-sharing agreement and, as the IRS argues, they agree to share option "costs" on a spread on exercise basis. In year six, Firm A's employees exercise all stock options granted in year one, resulting in a large section 83 deduction for Firm A. Under the IRS position, Firm B would be liable for the section 83 deduction enjoyed by Firm A up to the amount of Firm B's cost-
sharing ratio as an additional cost of the joint development project - even though the grant and exercise of the options had nothing to do with the joint development effort. Firm B would thus be required to underwrite the rise in stock price in Firm A, even though, by definition, the options were granted five years before the development work began and the run up in stock price occurred two years before the development work began.

The point is that the change in price in Firm A stock may be wholly unrelated to anything connected with the joint development effort with Firm B. For example, Firm A can have an entirely different product, Product A, that is completely outside the scope of the development effort. If suddenly demand for Product $A$ takes off and the firm starts selling huge quantities of the item, then Firm A's stock price may well increase substantially in value for that reason alone. Under the IRS hypothesis, with the voluntary agreement of Firm B, Firm A would charge Firm B for this increase in stock price through the spread on exercise of stock options held by employees working on the joint development effort. Obviously, this rise in stock price would have nothing to do with the joint development effort with Firm B.

Even if Firm A started granting options only at the same time as the joint development project began, the risk to Firm B of entering into a joint development agreement under the IRS exercise date assumption would be sufficient to cause rational firms never to agree to such an arrangement. Specifically, in the IRS exercise date scenario, Firm B essentially writes a naked call option on the stock of Firm A. Writing a naked call option on the stock of Firm $A$ is akin to Firm B selling short the stock of Firm A, its business partner. Firm B has unlimited liability exposure for increases in the stock
price of Firm A. In other words, the better Firm A does (regardless of whether such success is based on the joint development effort or occurs for wholly unrelated reasons), the more expensive the joint development effort is for Firm B. On the other hand, the empirical research shows that a representative Firm A will have incurred no cost attributable to the employee stock options. Further, Firm A will receive additional cash when its employees exercise their options in an amount equal to the exercise price of the option which equaled the market price of the stock at the date of grant. No rational firm would enter into such a relationship.

Moreover, we understand that under the law, the option holders' decisions as to date of exercise and date of sale of stock will determine the amount of the firm's section 83 deduction. These choices surely do not affect the firm's revenues or costs in one way or another. Consequently, use of the section 83 deduction amount makes no sense as an indicator of any corresponding cost that would be shared in a cost-sharing agreement.

## Empirical Work Attempting to Measure the Effect of Employee Stock Option Grants on Share Prices Has Generally Found that Option Grants Have a Positive Effect and No Net Economic Cost.

As has been noted above, employee stock options in principle have both positive and negative effects on share prices. They tend to reduce earnings per share when measured on a "fully diluted basis," i.e., accounting for their potential exercise. But they also have beneficial incentive and agency effects. Managers are the agents of shareholders and because both parties are self-interested, there can be serious conflicts between them over the adoption and execution of proper corporate strategy. Managers who are not owners may not have an incentive to conserve the shareholders' capital. These are called agency problems. The use of at-the-money employee stock options,
which gives executives a significant equity stake in the corporations they manage, tends to ameliorate agency problems by bringing the interests of owners and managers together. This can avoid the wasteful expenditure of corporate resources and promote long-run efficiency, productivity, growth and international competitiveness. While employee stock options put managers in a more favorable risk position than outright owners of common stock, there is no doubt that managers gain from options only to the extent that well informed shareholders benefit as well.

Conceptually, neither the grant nor exercise of employee stock options is a direct cost to the firm. At grant, the employees theoretically are willing to trade off some cash payment for option grants, thus preserving the firm's cash. At exercise, the employees pay cash to the firm in an amount equal to the fair market value of the stock at the time of grant, again increasing the firm's cash. As discussed above, the issue of the options does not reduce the firm's earnings but rather potentially redistributes a portion of the equity claims on the firm from existing shareholders to the option holders. In theory, the existing shareholders are willing to give up some equity to the employees on the presumption that the beneficial incentive and agency effects stemming from the options will cause the firm's value to grow more quickly.

While the issue of employee stock options has no direct cost effect upon the firm and is expected to improve the firm's performance, there none the less is a possibility that the issue of options can indeed produce an economic cost to the firm. This is so because the firm's shareholders and the market may believe that the dilutive effect of employee stock options is greater than the anticipated benefits from the agency and incentive effects. If the shareholders and the market were to believe the detrimental effects to
outweigh the beneficial effects, then the firm's stock price would fall in response to this expected diminution in the value of the firm. If stock prices declined, then the firm's equity cost of capital would be increased. An increase in the firm's equity cost of capital can legitimately be interpreted to constitute a net economic cost to the firm. On the other hand, if the market anticipated that the beneficial effects of options would equal or outweigh the dilutive effects, then the firm's stock price would remain unchanged or increase above that which would otherwise have prevailed. If the stock price remains unchanged or is increased, then the firm's equity cost of capital remains unchanged or would decrease, with the issue of the options then having no net economic cost to the firm.

Whether the issue of employee stock options then constitutes such an economic cost to the firm is an empirical question that must be examined by study of the effect of employee stock options on stock price. A number of investigators have attempted to measure empirically whether the net effect of employee stock option grants tend to raise or lower stock price in reality. In this section, we briefly review some highlights of the empirical work. We conclude that while these studies produce different estimates of the effect of option grants on share prices, most find a positive effect on shareholder wealth and none of the studies provides convincing evidence that the net effect on share prices is negative.

## Some Methodological Problems

There are some very difficult conceptual and methodological problems involved in all of the analyses we will review. What we seek to determine is whether the value of options granted has a positive or negative influence on share prices. Certainly, we know


#### Abstract

that ordinary expenses tend to depress share prices. For example, if a firm's earnings decline with increased expenses we can expect the stock price to suffer. But we have seen above that the fair value of options granted can only be estimated and the estimates used are far from precise. One method used in the studies is to estimate the value via a Black-Scholes formula as used in the footnotes of the financial statements of the different firms. Unfortunately, since each firm estimates the value of option grants using different assumptions, there can be substantial differences among option expense estimates even for similarly situated firms. Even more fundamentally, the best yardstick available to measure the value of employee stock options - the Black-Scholes option pricing model cannot and does not measure the value of employee stock option grants with any reasonable degree of precision or economic certainty.

There is an even more serious statistical problem to be overcome. Most of the empirical studies attempt to determine the effect of option expense on share price. For this purpose, a number of the empirical studies have used firms' Black-Scholes based option expense estimates from the firms' FAS 123 footnote disclosures. But as noted earlier, the amount of option expense estimated via the Black-Scholes model depends on the price of the shares. As a result, these empirical studies entail a statistical difficulty known as a "simultaneity problem." Option expense may influence share price but share price also influences option expense. Different studies deal with this problem in different ways. In some studies, option expense is estimated in an artificial way and it is hard to know if the empirical results are simply artifacts of the particular method of estimation.


Finally, many of the statistical studies attempt to show the relationship of stock prices to the following explanatory variables: earnings, book value, expected future growth, and the fair value of option grants. If a negative sign is obtained on the option expense variable (i.e., a greater value of options issued is associated with lower stock prices) at least one study has interpreted the result as indicating that options grants depress share prices. But, in reality, all that is being measured is the negative dilutive effect of options. The positive incentive effects are likely to be subsumed by the expected growth variable. Therefore, we can not take any one of these studies as dispositive. Nevertheless, there have been a substantial number of papers written on the subject and fortunately the papers do suggest a tentative conclusion.

## A Review of the Empirical Studies

Below we summarize the major conclusions of the empirical studies that attempt to measure the effect of ESOs on stock prices.
a) James Brickley, Sanjai Bhagat, and Ronald Lease, "The Impact of LongRange Managerial Compensation Plans on Shareholder Wealth," Journal of Accounting and Economics, Vol. 7, 1985, pp. 115-129.

The authors examine the stock price effect of the announcement of long-range compensation programs. Such an analysis is called an "event study." In long-range compensation programs the authors include stock option plans as well as grants of stock appreciation rights (SARs), restricted stock, etc. No significant immediate effects (over the next two days) either positive or negative are found. There is some uncertainty, however, over the time needed for details of the plan to have reached the market. Therefore, they examine price effects (relative to the market) over longer periods such
that as from the board approval date to the day after the SEC received news of the plan (the SEC stamp date) and from two days after the SEC stamp date through the day after the shareholder meeting approves the plan. The price effects for these longer periods are positive and statistically significant. The authors conclude that on average, these plans tend to increase shareholder wealth.
b) Richard Defuseo, Robert Johnson, and Thomas Zorn, "The Effect of Executive Stock Option Plans on Stockholders and Bondholders," The Journal of Finance, Vol. XLV, No. 2, June 1990, pp. 617-627.

The authors find that the "event" constituted by an executive stock option plan announcement is followed by positive stock price reactions and negative bond price reactions. They conclude that executive stock options do improve managerial incentives but also may induce a wealth transfer from bondholders to stockholders as managers take on more risk. To the extent that bond prices decline in response to the announcement, the decrease in bond price implies that there can be an increase in the cost of debt capital for the firm; however, the accompanying stock price increase demonstrates that stockholders believe that the beneficial effects of the stock options outweigh any increased interest costs that will reduce the corporation's earnings .
c) David Aboody, "Market Valuation of Employee Stock Options," Journal of Accounting and Economics, Vol. 22, 1996, pp. 357-391.

Aboody finds that the total value of all options issued has the expectable dilutive effect on share price after netting out of any favorable incentive effects on earnings. But the value of options recently granted (and which have not yet produced favorable incentive effects on earnings) has a positive effect on share prices. In the study, Aboody
makes his own estimates of the value of options granted. He also uses the FASB method of calculating compensation expense and finds it has no additional explanation power.
d) Douglas J. Skinner, "Are Disclosures About Bank Derivatives and Employee Stock Options' Value Relevant?" Journal of Accounting and Economics, Vol. 22, 1996, pp. 393-405.

This paper criticized the methods employed in the original (1996) Aboody study and led to some of the changes employed in a second study by Aboody, et. al. Skinner argues, however, that methodological issues continue to affect all studies that attempt to estimate the value of option grants (current and past) on share value. Skinner suggests that "event studies" are the appropriate method for determining the effect of stock-option grants on share prices.
e) Lynn Rees and David Stott, "The Value-Relevance of Stock-Based Employee

Compensation Disclosures", Journal of Applied Business Research Vol. 17, No. 2 (Spring 2001) pp. 105-116.

The paper examines the association between employee stock option compensation expense as stipulated by FAS123 and firm value. The authors conclude that "the incentive benefits derived from ESO [employee stock option] plans outweigh the costs" and that the option forms of employee compensation "is not a typical expense."

Employee stock option "expense" as measured by FAS 123 affects firm value (i.e., stock price) positively and statistically significantly "in the opposite direction from other income statement expenses."
f) David Aboody, Mary Barth, and Ron Kasznik, "SFAS 123 Stock-Based Employee Compensation Expense and Equity Market Values," July 2001, GSB Standford University Working Paper.

The authors find the expected negative dilution effect of employee stock option grants on stock prices if the incentive effects of options on expected future earnings are included in the analysis as a separate predictor. But if the expected future earnings term is omitted, then SFAS 123 stock-based employee compensation expense has a positive effect on stock prices. Thus, the authors suggest that the net effect of stock options (considering both the negative dilution and positive incentive effects) is positive but statistically insignificant (i.e., no measurable net economic cost to issuance of the options).
g) Timothy Bell, Wayne Landsman, Bruce Miller, and Shu Yek, "The Valuation Implications of Employee Stock-Option Accounting for Computer Software Firms," July 2001 Working Paper.

The authors use a sample of 85 computer software firms and conclude that employee stock options are valuable to the shareholders of software companies. They suggest that the appropriate way to determine how market values reflect option grants is by treating them as an (intangible) asset. Most important for the issue considered here, the variable treating employee stock options as an asset has a significantly positive effect on the firm's market value. Indeed, the authors find that "ESO assets" appear to be priced in the market at levels higher than other net assets of the firm.
h) J. Core, and D. Larcker, "Performance Consequences of Mandatory Increases in Executive Stock Ownership," Working Paper, Forthcoming Journal of Financial Economics, 2002.

The authors examine the performance of firms adopting "target stock ownership" plans. These plans are typically mandated by boards to increase executive stock ownership. They find that firms adopting target ownership plans have lower industry adjusted returns over the two years prior to adoption. One and two years after the adoption of the plan, however, they find that firms with these plans outperform a matched sample of similar firms.
i) Stephen Hillegeist and Fernando Penalva, "Performance and Valuation Consequences of Employee Stock Options," Working Paper, January 2002.

Unlike previous studies, the authors find that the fair value of employee stock options granted during the year has a negative and statistically significant effect on share price. They find no association, however, between the fair value of outstanding options granted in prior years and share prices. Their finding that option grants negatively affect share prices does not continue to hold, however, when the entire data set (including outliers) is considered, and when a different measure of options expense is used. ${ }^{10}$ In any event, even accepting the Hillegeist and Penalva findings at face value, we cannot interpret their

[^46]study as showing a net cost from employee stock option plans. This is so because their analysis shows that future stock performance is enhanced by firms that increase their employee stock option grants. Thus, the net effect on shareholder wealth is likely to be positive rather than negative. Indeed, the authors conclude that firms in general are below their optimal level of employee stock option grants.

## Conclusion

Numerous investigators have attempted to measure the net effect of employee stock option grants on the firm and its shareholders. The majority of the studies find that employee stock option programs have a positive net effect on share prices. However, considerable measurement and econometric problems affect all the analyses and it is not surprising that some studies are unable to measure any statistically significant effect at all upon share prices (i.e., the employee stock option programs have no measurable effect on share price). The one unpublished study (Hillegeist and Penalva) that appears to find a significant negative effect on share prices from the value of options granted does not provide robust results. In any event, Hillegeist and Penalva find that firms which increase grants experience better future performance. Thus, even accepting their findings at face value, the net effect of employee stock option grants is a positive one for the firm and its shareholders. Thus, the empirical studies performed so far establish that the issue of employee stock options has either no effect or a positive effect on stock price. Thus, the empirical studies establish, at a minimum, that the issue of employee stock options has no general and measurable economic cost to the firm.

It may be argued that the purely dilutive effect of the issue of a stock option does have a clear opportunity cost because it reduces the price of the firm's shares since it reduces the price below what it otherwise would have been. But the evidence indicates that in general the issue of employee stock options has incentive and agency effects that work in the opposite direction. On average, these incentive and agency effects more than offset the dilutive consequences. Therefore it is clear that any such net opportunity cost must typically be zero or negative. That is, typically there can be no such opportunity cost at all.

An example underscores this point. Assume a firm can either grant an at the money option for 100 shares to an employee or sell a warrant on equivalent terms into the marketplace. ${ }^{\text {" }}$ If the firm opts to grant the employee stock option, the employee will theoretically take less current cash compensation. As we have discussed, the empirical evidence establishes that the market views the positive incentive and agency effects at least to be equal to the negative dilutive effects. Thus, the stock price does not fall, even though each shareholder's ownership has been diluted. If the firm takes the alternative approach of selling the warrant into the marketplace, the results are not the same. If the warrant is sold, the firm does indeed receive cash. However, this cash receipt will be offset in whole or in part by the current cash compensation foregone by the employee in the other alternative, as the employee will now need to be paid additional cash in lieu of options. The firm's shareholders will also suffer a negative dilutive effect from the sale of the warrant, as they would in the case of the option. However, the sale of the warrant does not generate the positive incentive and agency effects peculiar to the grant of

[^47]employee stock options. Thus, the sale of the warrant into the marketplace is less valuable to the current shareholders than the grant of the employee stock options. Put slightly differently, because the firm can grant the employee stock option without decreasing the price of its stock, it can sell an additional warrant or share of stock at the same price at which the warrant or share would have sold if the employee stock option had not been granted. The firm can do both. The grant of the employee stock option does not raise an opportunity cost to the firm.

The IRS may argue that there is an opportunity cost of a different sort, that an employee stock option issued when the price was $\$ 10$ but exercised when the stock price reached $\$ 50$ entailed an opportunity cost of $\$ 40$ to the firm. But that is no different than asserting an "opportunity cost" to the firm of issuing a share at a time when its price was $\$ 10$ rather than postponing the issue to some future distant date when its price might be \$50. Clearly, neither of these entails reasonable substitute choices for the firm. For example, for the firm that needs money today it is not an equivalent choice to obtain it, say, four years later. Indeed, this purported opportunity cost calculation is even more severely damaged by the fact that the rise in stock price may itself well be a partial consequence of the issue of the options.

## On Arm's-Length Evaluation of Costs

There are many cost elements for which data are not readily knowable or where the information is not known at all. There are even cases in which it is unknowable in principle. As a result, accountants frequently and quite justifiably are driven to adopt simplifying proxies that can be used for calculation purposes, even when they
demonstrably have little or no relation to the underlying reality. A prime example is a fully allocated cost that ostensibly purports to specify which portion of some total outlay that inextricably benefits several outputs of a firm is to be considered the responsibility of each of the different benefiting outputs. Since there is no way of assigning the unassignable, the accountant is driven to adopt some arbitrary criterion, such as the values or the weights of the different products, as the basis for the apportionment of the unassignable costs and calculation of the "full costs" of each of the individual products. Similarly, conventions such as straight line depreciation permit easy workability but may have little relationship between the numbers generated by the calculation and the underlying reality. True values, actual costs and relevant practices of reality, however, cannot be determined in this way. Rather, wherever possible, one must look to actual practice - to the workings of reality to get at such matters. Moreover, it is essential in this search to focus attention on a reality that is not distorted by the interests of the participants. Thus, where assignment of cost responsibility is at issue, and the practices that are followed in that assignment are in question, we are led to look for arm's-length transactions as the most reliable source of the requisite information. Where the parties in question are independent and neither has any interest in biasing matters in favor of the other, one can be confident that the process will not be systematically distorted and that it will not yield distorted information.

The matter here in question is precisely of this variety. The issue is whether the issue of a stock option creates any cost that we can expect to be included in a cost-sharing agreement entered into at arm's-length, and whether in actual practice such possible costs are systematically included or included at all. Reliance on the evidence derived from
arm's-length transactions relieves us of the need for recourse to arbitrary valuation and costing procedures, and instead bases our inferences on the firm foundation of market experience. We therefore turn to examination of the pertinent inferences that can be drawn from the examination of arm's-length relationships in the relevant arena.

## Stock Options in Arm's-Length Cost-sharing Contracts: the Incentives

There are several reasons why we cannot normally expect cost-sharing contracts entered into at arm's-length to include stock options as generators of costs that are to be shared. This, of course, does not mean that exceptions are impossible. But it does mean that if the empirical evidence is consistent with the analysis, it is illegitimate on the arm's-length standard to claim that such contracts can be deemed implicitly to include costs that are attributable to any issue of stock options by one of the cost-sharing firms. This conclusion, of course, becomes particularly compelling when one cannot even pretend to be able to provide reasonably accurate evaluations of these purported costs, a difficulty the analysis of the preceding section has demonstrated.

The three primary reasons why it is rational for cost-sharing firms to omit stock options from their agreements is easily made clear from our earlier discussion in this statement. The first is the fact that that it is at least arguable that stock options generate no costs at all. As was shown here earlier, the stock options are never a cost to the firm, in the standard sense. At most they constitute a redistribution among old and new stockholders, with no change in the total profits to be allocated among them. In that case, they would constitute a cost to some stockholders with an offsetting benefit to others. But that is not all there is to the story, because the available evidence does not reject the
hypothesis that the issue of stock options, presumably through its incentive effects, generally serves to increase the profits of the firm, and thereby becomes beneficial to all of the stockholders, as well as the firm.

The second reason for exclusion of stock option considerations from arm's-length cost-sharing agreements follows from the first. Whatever cost, if any, is to be attributed to an issue of stock options, it is patently very different from a direct financial outlay. The qualitative character of the two types of "costs" raises very cogent questions about the proper way to aggregate them. The old problem raised by any attempt to add apples and oranges clearly re-arises here.

The third reason why cost-sharing agreements cannot be expected to incorporate stock-option components stems from the difficulty of evaluating these options, and the inaccurate results that are obtained even from the most sophisticated methods currently available.

All of this means that even if it were believed that such options entail some cost, their inclusion in a cost-sharing agreement might simply make the agreement complex, ill defined and unworkable. Rather than serving as an effective and easily utilized tool beneficial to the participating firms, such a contract would simply invite contention, increase the costs of operation of the agreement, and very likely make its adoption threaten to be more trouble than it is worth. It can only be concluded that it should not be surprising if it turns out to be difficult to find any real arm's-length contracts that include any cost component associated with the issue of stock options. There is very good reason for those who enter into such contracts to avoid the inclusion of any such element.

But that is not the end of the story because the IRS favors a particular approach to estimation of the purported cost of the options that it takes to be included implicitly in cost-sharing agreements. It will be shown next that this approach makes it even considerably less likely that any rational firms would enter into an agreement that followed the IRS approach to the sharing of the asserted costs of stock options.

As we understand it, the IRS favors the valuation of stock options on the basis of their price at the future date when they are exercised by their recipients. Under such a procedure the cost to the firm of the granting of the options would be based on the difference in the price at the date the options are exercised and the price at the time the options were issued. As discussed above in detail at pages 21 to 25, this exercise date calculation is not a valid measure of any economic cost to the firm and no rational firm would enter into such a relationship.

The most obvious difficulty raised by this approach is the degree to which it. compounds the uncertainties for current evaluation of the value of a stock option at the date it is granted. If the costs are not to be reported on this basis transaction by transaction at the dates the options are exercised, but at the date the options are issued, this does indeed entail a marked aggravation of the problems. There is no way in which one can even be certain in advance whether the options will ever be exercised, as surely they will not be if the firm's stock price falls. Even if one can be confident that they will all be utilized at some future dates, those dates are likely to vary from one option holder to another and even one holder may elect to use different portions of his options at different times. The difficulty of foreseeing the prices that will prevail at those dates is equally clear. The bottom line is that the exercise-date approach to valuation vastly
multiplies the uncertainties and computational problems that would beset any costsharing firms that contemplated such a course.

But this, too, is not the end of the story. An agreement made on such terms would commit the firm that undertakes to bear part of these costs to a very risky undertaking. Its future cost-sharing payments would fall due at unpredictable dates and at unpredictable prices. In effect, the contracting firm that undertook to do this would have written a call option on the stocks of the other participant in the cost-sharing arrangement. This is akin to selling short the stock of one's business partner. One can hardly imagine that firms would commonly be willing to enter into such agreement voluntarily and at arm's-length.

## Stock Options in Arm's-Length Cost-Sharing Contracts: Empirical Evidence

Even though it should be recognized that inclusion of stock options in arm'slength cost-sharing arrangements is implausible as a matter of economic theory and analysis, it is still conceivable that it does occur in reality. This possibility requires examination of the available evidence. The evidence is necessarily incomplete, because there is a profusion of such contracts and many of them are treated as proprietary and are consequently not open to general inspection. Yet the pertinent information is far from being totally unavailable. As will be shown next, while its incompleteness does not permit us to judge whether or not there are ever any contracts of the sort at issue in which stock options do play a role, we can conclude from the evidence that there is a very substantial number of such arm's-length contracts from which consideration of stock options is precluded. Moreover, neither we nor, apparently, the IRS have been able to
find a single example in which stock options are given any role of the sort the IRS proposes to assign to them. The empirical evidence thus confirms the economic theory and analysis. Further, on the basis of the available evidence on pertinent arm's-length transactions, from an economic perspective it is simply illegitimate for the IRS to impute to a cost-sharing agreement in which the issue is not mentioned the presumption that stock options are implicitly included in the agreement.

Our empirical evidence rests on contracts for service between the private sector and the federal government of the United States, which are entered into voluntarily and at arm's-length, and in which the government undertakes to reimburse the private firms for the cost incurred in supplying the government with the items provided under the contracts. In particular, we will deal with the billions of dollars of services purchased each year by the government from the private sector and classified as research, development, test and evaluation services ("RDT\&E"). We understand that these contracts with the private sector for RDT\&E, like all purchases of goods and services by the Executive Agencies of the Federal Government, were governed throughout the years at issue by the Federal Acquisition Regulations System ("FARS"). ${ }^{12}$

In purchasing RDT\&E or other services from the private sector, the United States Government is precluded from paying for any value of at-the-money options issued by contractors to their employees. ${ }^{13}$ The United States Government takes the position that the grant of employee stock options does not constitute an allowable compensation cost

[^48]and prohibits private sector contractors from charging the United States for the value of stock options granted to employees working on RDT\&E service contracts (or any other service contract). ${ }^{14}$

The Directorate of Information, Operations and Reports, of the U.S. Department of Defense ("DOD") publishes information each year regarding the DOD's purchases, including reports on annual DOD purchases of RDT\&E in contract amounts of more than $\$ 25,000$. These reports for the years 1990 through 2000 indicate that each year between two and three thousand different firms have been involved in these transactions. The amounts entailed are well in excess of 16 billion dollars per year, or some 200 billion dollars over the decade of the 1990s. Thus, neither the amounts of money involved nor the number of contracting parties can be considered insignificant.

Moreover, the contracts are evidently voluntary, arm's-length arrangements. None of the contracting firms is obligated or required to enter such a contract and thereby to accept its terms. But, despite the explicit exclusion of stock options and any associated costs from the amounts to be reimbursed, this great multitude of suppliers willingly and consistently has accepted those terms.

Perhaps even more telling is the admittedly complete absence of any contrary evidence that has been found by the IRS. The IRS has admitted that its inclusion of the "cost" of employee stock options in the costs to be shared in the shared-cost contracts is not based on any actual transactions between unrelated parties. Further, the IRS has admitted that it possesses no evidence or written contracts (cost-sharing agreements or otherwise) that demonstrate that any unrelated party at arm's-length actually pays for the

[^49]"cost" of employee stock options issued to or exercised by the employees of the other contracting party. In particular, the IRS has admitted that it possesses no evidence that unrelated parties base payments for employee stock options on the amount of the tax deduction under section $83 .{ }^{15}$

But even if there do exist some such contracts, that surely is hardly enough to show that standard arm's-length practice is consistent with the IRS contentions. And economically, standard arm's-length practice, rather than the possibility of exceptional cases, is what is truly the pertinent issue.

## Conclusion

The role of employee stock options is complex and continues to be investigated in the economic literature. Much remains to be learned about the subject. But a good deal is well understood about the topic. We know that their issue can, at least in principle, be beneficial both to the issuing firm and to all of its stockholders. We know, consequently, that they need not entail a cost, as the term is normally and appropriately interpreted. We know that even the value of the employee stock options is not in general accurately and unambiguously determinable. Consequently, a proposal to base the calculation of their purported costs on such a valuation can hardly be expected to provide figures that can pretend to reliability. There is even less logic to a proposal to base evaluation of the purported costs of employee stock options on the spread between the exercise price and the current market price of the stock at the date of exercise, an approach that is wholly indefensible from an economic standpoint. Perhaps most important, the appropriate criterion, the arm's-length standard, has yielded no evidence that supports the IRS

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Is Petition If 5.a.(37)-(45) & 5.a.(50)-(54) and Answer 91 5.a.(37)-(45) & 5.a.(50)-(54).
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position and much evidence that contradicts the contentions that underlie that position. Consistent with our economic analysis, not a single example has been found in which unrelated parties in the marketplace agreed to share the value or purported costs of employee stock options. At the very least, it must be concluded that Xilinx's actions in excluding the value or "cost" of employee stock options from its cost-sharing arrangement were consistent with the theory and practice of arm's-length dealings by unrelated parties in the marketplace.

## Appendix

A Primer on Options

## a) Basic Definition

i) Exchange-traded options

A stock option, just as the name implies, gives the buyer the right (but not the obligation) to buy or sell a common stock (or group of stocks) at a specific price on or before a set date. For example, a call option on IBM might cost the buyer $\$ 10$ a share (the option premium) expiring the third Friday in July (the expiration date) with an exercise price of $\$ 100$ a share (the exercise or strike price). Thus, for a premium of $\$ 10$, the buyer of this call option has the right to purchase a share of IBM at $\$ 100$ at any time up through the third Friday in July. The seller (or writer) of the option receives the premium and takes on the corresponding potential obligation to sell the share at the contract price. A put option reverses the situation. A put on IBM gives the holder the right to sell IBM shares at a specific price. The seller of the put (called the writer) takes on the potential obligation to buy the shares.

Exchange-traded options exist on the major traded individual stocks as well as on a variety of stock indexes, bonds, and foreign
currencies. Options on the S\&P 500 index, the NASDAQ 100, and the Dow Jones Industrial Average are traded in Chicago. In addition, options are traded on a variety of smaller capitalization indexes as well as specific industry indexes. The volume of trading in basic options and futures has at times actually exceeded the volume of trading in the underlying assets. Option holders are free to purchase or sell options at any time up until the expiration date.
ii) Employee stock options

These are call options granted to employees of corporations as a form of incentive compensation designed to motivate the employees and to align their interests with those of the shareholders as a group. The employees benefit only to the extent that the share price increases and thus the well being of the employee is tied directly to that of the shareowner.

The typical procedure is to grant the option with an exercise price equal to the current market price. Thus, if IBM were selling at $\$ 100$ per share today, the employee stock option would have an exercise (strike) price of $\$ 100$. Thus far, employee stock options (ESOs) closely resemble those traded on the major options exchanges. But there are major differences between the two types of options.

ESOs are typically very long-term instruments with expiration dates often 10 years from the grant date. Few ESOs are exercisable at the time they are granted. ESOs are normally subject to a vesting schedule, typically over a four-year period, before they become exercisable. After the ESOs vest, they can be exercised at any point in time up to the end of the options' life. However, unlike exchangetraded options, ESOs cannot be traded or sold. If the employee leaves the firm or is terminated, the unvested ESOs must be forfeited and the vested ESOs must be exercised (assuming they are in the money) within a short period of time after departure. The tax treatment of ESOs also differs from the treatment of exchange-traded options. Finally, when an employee exercises her ESOs, the firm typically issues new shares in exchange for the employee's cash payment of the exercise price.
b) Valuation of Options: The Role of Volatility

The process by which options are valued is often misunderstood by the general public. The key element making some options far more valuable than others (other than, of course, the time period to expiration) is the characteristic volatility of the underlying stock. A simple example will
make the situation clear. Suppose we have two $\$ 30$ stocks and three-month call options on each, with an exercise (strike) price of \$30. But let's assume that one of them tends to be highly volatile (say, a tech stock) and the other far more stable (say, a company selling staple consumer goods). We will assume that future prices in three months will be one of five values - all equally likely.

Exhibit 1 shows the possible future prices for the two stocks under a high and low volatility assumption. We'll assume that the price in three months is equally likely to take on each of the five possible values listed so that on average the price has an expected future price of $\$ 30$. No greater expected appreciation is assumed for either stock. But for the high-volatility stock, the highest price is higher and the lowest price lower than is the case for the low-volatility stock. Now, I will show that an option on the highvolatility stock is more valuable than an option on the more stable stock.

## Exhibit 1

| High-Volatility Stock |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Stock price | $\$ 10$ | $\$ 20$ | $\$ 30$ | $\$ 40$ | $\$ 50$ |
| Option payoff | 0 | 0 | 0 | 10 | 20 |
| Low-Volatility Stock |  |  |  |  |  |
| Stock price | $\$ 20$ | $\$ 25$ | $\$ 30$ | $\$ 35$ | $\$ 40$ |
| Option payoff | 0 | 0 | 0 | 5 | 10 |

Upon expiration of the option in three months, the option will be worthless if the stock sells at $\$ 30$ or below. For example, if the stock sells at $\$ 20$ in the market, the option holder would certainly not be interested in exercising his option at $\$ 30$. If the stock is above $\$ 30$, however, the option is valuable. Suppose, for example, that the price is $\$ 40$. The option holder could exercise at $\$ 30$ and simultaneously sell shares received in the market at $\$ 40$, earning $\$ 10$ per share. This $\$ 10$ payoff is called the option's intrinsic value. One can see immediately that for the high-volatility stock, when the stock price does go above the strike price, the value of the option is far greater. In instances where the market price increases, the option holder earns far more when the underlying stock is more volatile. Thus, options on volatile stocks are, other things being equal, more valuable than options on non-stable stocks.
c) The Binomial Option Pricing Model

Let's now develop a simple binomial model showing how the value of an option could be determined if its possible returns, both when results turn out to be favorable and when they are unfavorable, are known in advance. Assume a stock currently priced at $\$ 80$ can take only one of two values at the end of the option period, assumed to be one year. It can either go up to $\$ 100$ or down to $\$ 70$, as shown in Exhibit 2. Because there are only two possible outcomes, the model is called a "binomial model." Further, assume there is a call option on the stock expiring in one year with a strike price of $\$ 80$ (the current market price).

As a step in determining the value of an option, we must first show how it can be used to form a hedge against the risks of stock ownership. This will be done by means of an illustration. We will show that with the payoff possibilities as given here, the following portfolio provides a perfect hedge, i.e., it eliminates risk completely.


Stock Price


Call Option Value

Hedged Portfolio
Buy $2 / 3$ share of stock; write 1 call (sell 1 call)
$2 / 3$ to 1 is hedge ratio = amount of stock purchased per call written If stock goes up: call is exercised, you get ( $80-331 / 3=462 / 3$ )
If stock goes down: you get ( $462 / 3=2 / 3$ of 70 )

We consider an investor who forms the following a hedged portfolio. The investor buys $2 / 3$ of a share of stock and writes one call (sells one call) with a strike price of $\$ 80$, expiring in one year. The ratio of number of shares to number of options in a perfect hedge, in this example, two-thirds to one, is called the "hedge ratio," which is equal to the amount of stock purchased per call written. (I'll show how to calculate the hedge ratio below.) This portfolio in, indeed, perfectly hedged. If the stock goes up to the $\$ 100$ value, the call is exercised and the investor gets $(\$ 80-331 / 3=46$
$2 / 3$ ). For $\$ 80$ is the exercise price and $\$ 331 / 3$ is what it costs the investor to buy the extra $1 / 3$ share he does not own but must deliver in exercise of the contract. If the stock goes down, the investor gets ( $\$ 462 / 3=2 / 3$ of $\$ 70$ ), since the investor owns $2 / 3$ share of a $\$ 70$ stock. So the outcome is the same whatever happens to the price of the stock. Hence, it is riskless, regardless of the price of the option or the future price of the stock.

Let me now explain how to price the option and how to derive the hedge ratio. We have seen that a portfolio of $2 / 3$ share and one call written is perfectly hedged. It has the same value whatever the price of the stock. In a well-functioning market any investment that has a guaranteed payoff cannot earn more than the risk-free rate of interest (which we normally consider to be the U.S. Treasury Bill rate).

We let $\mathrm{C}=$ the price of the call option. What is the amount invested in the hedged portfolio? It is $2 / 3(80)-$ C. What is the payoff? The payoff, if the stock goes up or down, is $462 / 3$. The amount invested can only earn the risk-free rate of interest, which we will denote as $\mathrm{r}_{\mathrm{F}}$. Therefore, it must be true that

Amount invested for one year $\times\left(1+r_{F}\right)=$ sure payoff

$$
[2 / 3(80)-C]\left(1+r_{F}\right)=462 / 3
$$

We then can solve for C if we know the interest rate. If, for example, the risk-free rate is 10 percent (written as 0.10 ), the call premium, C must equal $\$ 10.91$ as shown in Exhibit 3. The exhibit shows in symbols how the binomial model prices the option at $\$ 10.91$.

By introducing some simple notation, we can now easily derive the hedge ration ( H ). Let $\mathrm{C}_{\mathrm{U}}$ and $\mathrm{C}_{\mathrm{D}}$ be the (intrinsic) value of the call option at the upper (U) and lower (D) stock prices at the end of the period (20 and 0 in our example). $S_{U}$ and $S_{D}$ will be the upper and lower stock prices (100 and 70 in our example). The hedge ratio is easily derived in Exhibit 3 and is shown to be $2 / 3$.

To fine it, we note that whether the stock attains its upper or lower value, the investor's value will be the value of the call option plus the value of the stock, i.e.,

$$
\mathrm{C}_{\mathrm{D}}+\mathrm{HS}_{\mathrm{D}} \text { or } \mathrm{C}_{\mathrm{U}}+\mathrm{HS}_{\mathrm{U}}
$$

which must be equal if the hedge is perfect. Therefore, solving for H , we obtain the basic formula of Exhibit 3.

## Exhibit 3

Hedge Ratio

$$
\begin{aligned}
& H=\frac{C_{U}-C_{D}}{S_{U}-S_{D}} \\
& H=\frac{20-0}{100-70}=\frac{20}{30}=\frac{2}{3}
\end{aligned}
$$

Amount invested in hedged portfolio: $\mathrm{H} \times \mathrm{S}-\mathrm{C}$
Amount at end of period: (HS - C) $\left(1+\mathrm{r}_{\mathrm{F}}\right)$
Payoff if stock goes up or down: $80-331 / 3=462 / 3$
$46 \frac{2}{3}=(\mathrm{HS}-\mathrm{C})\left(1+\mathrm{r}_{\mathrm{F}}\right)=\left(53 \frac{1}{3}-\mathrm{C}\right)\left(1+\mathrm{r}_{\mathrm{F}}\right)$
$53 \frac{1}{3}-\frac{46 \frac{2}{3}}{1.1}=C$
53.33-42.42 $=\mathrm{C}$
$10.91=\mathrm{C}$
d) From the Binomial Model to the Black-Scholes Option Pricing Formula

The binomial model obviously oversimplifies the problem of option pricing by assuming that only two prices are possible at the end of the option period and that they are known in advance. In fact, however, the binomial model is easily extended into multiple time periods. We will assume that in
any one time period (say a trading day or trading week or month) a stock may either go up or down. We will designate $\mathrm{S}^{+}$as the state where the price increases and $\mathrm{S}^{-}$as the state where it decreases.

We'll assume that in the "up" state the price increases by 5 percent and in the "down" state it decreases by 3 percent. Suppose that the initial price was 100 , so that the two possibilities in the next period are as shown below.


Then in the next period suppose the price again can either go up 5 percent or down 3 percent. We then have the following possibilities.


We can then attach probabilities to the various outcomes. If the probability of an up movement or down movement is $1 / 2$, as is the case with a fair coin, then $1 / 4$ of the time we will experience two up movements in a row, similar to the probability of flipping two heads in a row. The probability of two down movements in a row is also $1 / 4$ (just as the probability of flipping two tails in a row). The probability of one up and one down is $1 / 4+1 / 4$ or $1 / 2$ since there are two ways of such an outcome occurring (up-down) and (down-up). We then can make the following probability table.

| End Price | Probability |
| :---: | :---: |
| 110.25 | $1 / 4$ |
| 101.85 | $1 / 2$ |
| 94.09 | $1 / 4$ |

In Exhibit 4 we show a three-period model and the related probability table. The probabilities are then graphed in the figure below the table.

Exhibit 4


| Event | Probability | Stock Price |
| :--- | :---: | :---: |
| 3 up movements | $1 / 8$ | $100 \times 1.05^{3} \quad=115.76$ |
| 2 up and 1 down | $3 / 8$ | $100 \times 1.05^{2} \times .97=106.94$ |
| 1 up and 2 down | $3 / 8$ | $100 \times 1.05 \times .97^{2}=98.79$ |
| 3 down movements | $1 / 8$ | $100 \times .97^{3}=91.27$ |



Suppose we wished to divide the periods into even smaller subperiods. For example, suppose that in each of six sub-periods the stock price can increase by $21 / 2$ percent or fall by $11 / 2$ percent. We can then graph the probabilities of the price at the end of the period in Exhibit 5 below. Note that as we extend the binomial model into smaller and smaller sub-periods,

## Exhibit 5


the price distribution approaches the familiar bell-shaped curve. As we continue subdividing, the interval in which stock prices are posited to move up or down, the end of period stock price will more and more closely resemble a ( $\log$ ) normal distribution.

The Black-Scholes Pricing Formula (shown in Exhibit 6) appears to be recondite and forbidding and it does require higher mathematics for its derivation. It can be viewed intuitively, however, as simply the logical extension of the binomial model. While the option value does not depend directly on the expected return from the stock, it does so indirectly by including the current stock price (which depends on the company's risk and return characteristics) and crucially on the stock's volatility - captured in the standard deviation term.

## Exhibit 6

Black-Scholes Pricing Formula
$C_{0}=S_{0} N\left(d_{1}\right)-X e^{-r r} N\left(d_{2}\right)$
where
$d_{1}=\frac{\ln \left(S_{0} / X\right)+\left(r+\sigma^{2} / 2\right) T}{\sigma \sqrt{T}}$
$d_{2}=d_{1}-\sigma \sqrt{T}$
and where
$C_{0}=$ Current call option value.
$S_{0}=$ Current stock price.
$N(d)=$ The probability that a random draw from a standard normal distribution will be less than $d$. This equals the area under the normal curve up to $d$.
$X=$ Exercise price.
$e=2.71828$, the base of the natural $\log$ function.
$r=$ Risk - free interest rate (the annualized continuously compounded rate on a safe asset with the same maturity as the expiration of the option, which is to be distinguished from $r_{f}$, the discrete period interest rate).
$T=$ Time to maturity of option, in years.
$\ln =$ Natural logirithm function.
$\sigma=$ Standard deviation of the annualized continuously compounded rate of return of the stock.

In particular, valuation of ESOs, as opposed to ETOs, involves an added layer of uncertainty because there is a finite probability of departure (and hence forfeiture); in other words, we are dealing with two stochastic process - the stock price and the employee's employment.

## OCT 292002

## Washington Council 케 ERNST\&Young

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}

October 28, 2002

## BY HAND

CC:ITA:RU (REG-106359-02)
Courier's Desk
Internal Revenue Service
1111 Constitution Avenue, N.W. Washington, D.C.

RE: Proposed Cost Sharing Regulations Under Section 482, Relating To The Treatment Of Stock-based Compensation Expenses (REG - 106359-02)

We are submitting these comments on behalf of the Global Competitiveness Coalition (the "Coalition"), a broad-based group of U.S. multinational corporations, in response to the Notice of Proposed Rulemaking published in the Federal Register on July 29, 2002 ( 67 Fed. Reg. 48997), relating to the treatment of stock-based compensation for purposes of the rules governing qualified cost sharing arrangements and for purposes of the comparability factors to be considered under the comparable profits method ("the proposed regulations").

The Coalition's fundamental concern is that the proposed regulations depart from the arm's length principle by arbitrarily requiring related parties to share stock-based compensation costs, a requirement that the Internal Revenue Service ("IRS") itself has yet to find factual evidence for in cost sharing arrangements between unrelated parties. As explained more fully below, in the case of any proposed change to the regulations under section 482 , the rules should satisfy the arm's length principle and fairly contemplate what unrelated third parties might view as reasonable and customary. The proposed regulations would not implement an arm's length standard because the mandated result ignores the reality that taxpayers regularly enter into cost sharing arrangements with unrelated parties without sharing stock-based compensation costs. There is also a concern that any departure from international standards of arm's length
measurements would administratively abrogate long-standing tax treaty obligations of the United States.

## I. Overview

The proposed regulations were issued pursuant to section 482,1 the provision that authorizes the Secretary to allocate gross income, deductions and credits between or among controlled taxpayers in order "to prevent evasion of taxes or clearly to reflect income." The Tax Reform Act of 1986 amended section 482 to require that consideration for intangible property transferred in a controlled transaction be commensurate with the income attributable to the intangible. The applicable legislative history indicates that in adding this "commensurate with income" standard to section 482, the Congress did not intend to preclude the use of bona fide research and development cost sharing arrangements as an appropriate method of allocating income attributable to intangibles among related parties, "if and to the extent such agreements are consistent with the purpose of this provision that the income allocated among the parties reasonably reflect the actual economic activity undertaken by each. Under such a bona fide cost-sharing arrangement, the cost-sharer would be expected to bear its portion of all research and development costs . . . ${ }^{2}$

The 1986 Act Conference Report also recommended that the IRS conduct a comprehensive study and consider whether the regulations under section 482 (issued in 1968) should be modified in any respect. In response to this directive, Treasury and the IRS issued a study on intercompany pricing (the "1988 White Paper"). ${ }^{3}$

Treasury and the IRS published final cost sharing regulations (at Treas. Reg. §1.482-7) in 1995. A cost sharing arrangement is defined as "an agreement under which the parties agree to share the costs of development of one or more intangibles in proportion to their shares of reasonably anticipated benefits from their individual exploitation of the interests in the intangibles assigned to them under the arrangement." ${ }^{4}$ The cost sharing regulations generally require that controlled participants in a qualified cost sharing arrangement share intangible development costs in proportion to their shares of the reasonably anticipated benefits attributable to the development of the intangibles covered by the arrangement. Treas. Reg. $\$ 1.482-7$ (d) defines intangible development costs as operating expenses other than depreciation and amortization expense, plus an

[^50]arm's length charge for tangible property made available to the cost sharing arrangement. The regulations provide that costs to be shared include all costs relating to the intangible development area, but no explicit guidance is provided on the treatment of stock-based compensation. There was no need to specifically reference stock-based compensation costs because, as a factual matter, there is no evidence that an arm's length transaction between unrelated parties would ever include such costs.

Aside from a few isolated instances where the IRS raised the issue on audit, taxpayers adhered to the arm's length standard and customarily took the position that employee stock options are not included in the cost sharing pool because unrelated third parties would not and have not included such costs. The arm's length standard for measuring cost sharing arrangements is consistent with U.S. tax treaties which do not contemplate including stock options as "costs" to be included in cost sharing agreements. ${ }^{5}$ While the treatment of stockbased compensation in cost sharing arrangements was the subject of several IRS Field Service Advices released in 2000,6 in July 2001, the IRS conceded the issue in one high-profile case under the 1968 regulations. ${ }^{7}$

Treasury's recent focus on cost sharing arrangements arose in the context of Congressional action on corporate inversion transactions. In Treasury's preliminary report on inversions ${ }^{8}$ and in subsequent testimony before the House Committee on Ways and Means, Treasury highlighted transfer-pricing issues as a factor in the proliferation of corporate inversion transactions. As noted by (then Acting) Assistant Treasury Secretary for Tax Policy Pamela Olson at a June 6, 2002 hearing before the Ways and Means Committee: "We will revise the current section 482 cost sharing regulations with a view to ensuring that costsharing arrangements cannot be used to facilitate a disguised transfer of intangible assets outside the United States in a manner inconsistent with the arm's length standard, as reinforced by the commensurate with income standard." ${ }^{\prime 9}$ The proposed regulations on stock-based compensation were released in the month following the delivery of this testimony.

[^51]If implemented, the preamble to the proposed regulations indicates that they would provide that stock-based compensation is taken into account in determining the operating expenses treated as a controlled participant's intangible development costs for purposes of the cost sharing provisions; provide rules for measuring the cost associated with stock-based compensation; and provide that the utilization and treatment of stock-based compensation is appropriately taken into account as a comparability factor for purposes of the comparable profits method under Treas. Reg. §1.482-5.

The proposed regulations would also add express provisions "coordinating" the cost sharing rules of Treas. Reg. §1.482-7 with the arm's length standard as set forth in Treas. Reg. §1.482-1. In this regard, Prop. Treas. §1.482-7(a)(3) provides that in order for a qualified cost sharing arrangement to produce results consistent with an arm's length result within the meaning of Treas. Reg. 81.4821(b)(1), all requirements of Treas. Reg. $\$ 1.482-7$ must be met, including the proposed treatment of stock-based compensation.

## II. The Primacy of the Arm's Length Principle

The arm's length principle has been codified in Treasury regulations since 1935, and is now stated in Treas. Reg. $\$ 1.482-(1)(b)$ as follows:
"In determining the true taxable income of a controlled taxpayer, the standard to be applied in every case is that of a taxpayer dealing at arm's length with an uncontrolled taxpayer. A controlled transaction meets the arm's length standard if the results of the transaction are consistent with the results that would have been realized if uncontrolled taxpayers had engaged in the same transaction under the same circumstances (arm's length result)." (Emphasis added.)

The courts, too, have consistently looked to the business practices of unrelated parties dealing at arm's length as the standard by which to measure related party transactions under section $482 .{ }^{10}$
A. The "commensurate with income" standard does not provide a basis for deviating from the arm's length principle.

[^52]Significantly, the preamble to the proposed regulations acknowledges the observation in the 1988 White Paper that the Congress intended Treasury and the IRS to apply and interpret the "commensurate with income" standard consistently with the arm's length standard. ${ }^{11}$ Indeed, the 1988 White Paper includes the statement that "the commensurate with income standard is premised soundly on arm's length principles." ${ }^{12}$
B. The current cost sharing regulations properly adhere to the arm's length principle.

In laying the foundation for the cost sharing regulations, the 1988 White Paper included the statement that "a bona fide cost sharing arrangement must reflect an effort in good faith by the participants to bear their respective shares of all costs and risks on an arm's length basis." Indeed, the current cost sharing regulations are replete with references that indicate reliance on the arm's length principle. For example, the preamble to the current regulations indicate that the "reasonably anticipated" standard governing the measurement of benefits "echoes the best method rule for determining the most reliable measure of an arm's length result under \$ 1.482-1(c)." As another example, the cost sharing regulations authorize the IRS to make appropriate allocations to reflect an arm's length consideration if a controlled taxpayer acquires an interest in intangible property from another controlled taxpayer (other than in consideration for bearing a share of the costs of the intangible's development). Treas. Reg. § 1.4827(a)(2).

## III. The Proposed Regulations Fail To Implement an Arm's Length Standard

Our concern with the proposed regulations centers on their failure to consider whether unrelated parties entering into a cost sharing arrangement and dealing at arm's length would share the costs of one party's stock-based compensation plan. In this regard, in recent litigation, the IRS itself was unable to establish a factual basis for the result that the proposed regulations would mandate. ${ }^{13}$ Moreover, among Coalition members that have engaged in numerous joint venture agreements with unrelated parties, none entered into arrangements that treat stock-based compensation as a shared cost. There is no reason to believe or

[^53]evidence to establish that an unrelated party would even agree to such a term. Thus, the proposed regulation's treatment of stock-based compensation as a shared cost manifestly contradicts longstanding practice among uncontrolled parties.

Essentially, the proposed regulations would add new Treas. Reg. §1.482-7(a)(3) to override cost sharing arrangements that would otherwise satisfy the arm's length standard set forth in Treas. Reg. $\$ 1.482-7(\mathrm{~b})(1)$. Basically, the proposed "coordination" rule provides that a cost sharing arrangement will meet the arm's length standard if all of the regulatory requirements (including the proposed treatment of stock-based compensation) are met. The mere inclusion of this statement in a regulation should not, however, end the inquiry into whether the proposed substantive rule would reach an arm's length result.
A. There are valid business reasons why independent parties would not agree to share stock-based compensation costs.

It is not at all clear that stock-based compensation should be viewed as part of a company's normal operating costs in the context of a cost-sharing arrangement. The preamble to the proposed regulations indicates that the definition of stockbased compensation is broad, comprising any compensation provided by a controlled participant to an employee or independent contractor in the form of equity instruments, stock options, or rights in (or determined by reference to) such instruments or options, regardless of whether the compensation ultimately is settled in the form of cash, stock, or other property. Specifically, the preamble states, 'Thus, these proposed regulations are intended to reach such forms of compensation as restricted stock, nonstatutory stock options, statutory stock options (incentive stock options described in section 422(b) and options granted under an employee stock purchase plan described in section 423(b)), stock appreciation rights, and phantom stock." In addition to the fact that the value of such stock-based compensation fluctuates independently of the value of any services, unrelated parties would be reluctant to share this expense because both the timing and amount would be unknown.
B. The departure from an arm's length standard would also raise concerns about U.S. tax treaties.

The proposed regulations are inconsistent with tax treaties that the United States has entered into with its trading partners. One of the central tenets of U.S. tax treaties is that the results that would have obtained in unrelated party situations should govern the tax results between related parties. ${ }^{14}$ Indeed, the Technical

[^54]Explanation of Article 9 of the 1996 U.S. Model tax treaty includes the statement that it "incorporates...the arm's-length principle reflected in the U.S. domestic transfer pricing provisions, particularly Code section 482.115

We would also note that the "associated enterprises" article of U.S. income tax treaties permits a contracting state to increase the profits of an enterprise that is subject to its taxing jurisdiction and that deals with one or more related persons to reflect the profits that would have resulted from arm's length dealing. ${ }^{16}$ Any deviation from the arm's length standard would weaken the U.S. tax treaty network and the protection of U.S. companies from harmful international double taxation.

The proposed regulations are a unilateral revision by the United States of the arm's length standard for cost sharing arrangements (which in many cases would operate to the detriment of the treaty partner). There is no reason to expect that our treaty partners will accept revisions proposed by the IRS on stock-based compensation expenses.

The Global Competitiveness Coalition appreciates the opportunity to provide these comments and requests, should you have any further questions, that you contact David Benson of Ernst \& Young LLP at 202-327-5788, or LaBrenda Garrett-Nelson or Francis Grab of Washington Council Ernst \& Young at 202-293-7474.

Respectfully submitted,
Global Competitiveness Coalition by:


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Re: $\quad$ Proposed Changes to Treas. Reg. § 1.482-7
-

Dear Sir/Madam:

We are writing to comment on the proposed changes to the $\S 482$ cost sharing regulations. Our concerns are that the proposed regulations, among other things, (1) adopt a deemed result, without regard to evidence of arm's length transactions, that has never been done before, (2) are inconsistent with the United States' treaty obligations, and (3) are inconsistent and contradictory with the current $\S 482$ regulations, including the best method rule, as well as other provisions. The proposed regulations should not be adopted.

## 1. No Evidence of Arm's Length Result Allowed

Prop. Treas. Reg. § 1.482-7(a)(3) provides that a qualified cost sharing agreement produces results that are consistent with an arm's length result within the meaning of § 1.482-1(b)(1), if, and only if, all of the requirements of § 1.482-7 are satisfied including the requirement that each participant's share of the intangible development costs equal its share of reasonably anticipated benefits attributable to such development. Thus, satisfying the requirements of the regulation deems the result to be an arm's length result. Conversely, if a taxpayer does not satisfy all of the requirements of the regulation, then the results will be deemed not to be arm's length. The regulations, therefore, provide a per se rule when an arm's length result will occur. The proposed regulations effectively state that the method provided in Treas. Reg. § 1.482-7 will be the best method. Worse, the regulation provides that Treas. Reg. § 1.482-7 will be the only method, notwithstanding any evidence of third-party arm's length comparables. Any such comparable would be irrelevant under the proposed regulation.

The explanation of the proposed charges does not make an assertion that the method in the regulation is adopted because unrelated parties acting at arm's length do what the

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proposed regulation requires. If there is no evidence presented that unrelated parties share "costs" as required by the regulation, how can the Service know that the result is arm's length? How can the Service adopt a rule that will be deemed to be arm's length and that failing the requirement will be deemed not to be arm's length with no actual evidence of comparability? The Service surely cannot have proposed to implement the arm's length standard in a regulation if it has no evidence of what unrelated parties would do at arm's length in cost sharing agreements. If it does not, in fact, have such evidence, then there is not a sufficient foundation for such a radical departure from the best method rule.

The 1992 proposed regulations specifically included language that the allocation of costs between the cost sharing participants had to reflect each participant's arm's length share of the costs and risks. When the current cost sharing regulation was adopted in 1995, no evidence was presented that the method of the regulation would automatically produce an arm's length result and failing to follow the regulation would produce a non-arm's length result. Thus, the Service in the past never provided any evidence that complying with the specific requirements of the proposed regulation, by itself, reaches an arm's length result.

The pre-1995 cost sharing regulation required that the "participating members share all the costs and risks of development on an arm's length basis." In Seagate Technology $v$. Commissioner, T.C. Memo, 2000-388 (2002), the Tax Court, in dealing with the pre-1995 regulation, stated that "Here we will be engaged in deciding whether the sharing of stock option costs is a circumstance 'comparable to those that would have been adopted by unrelated parties."' The Court went on to state that:
neither party has advanced evidence or affidavits completely resolving, as a factual manner, the question of whether arm's length parties to a similar transaction would share the costs of employee stock options. ... we are compelled to hold that there is a genuine dispute about material facts. We cannot say that either party has presented or had the opportunity to fully present facts or other evidence adequately addressing, for the benefit of a fact finder, whether the regulatory standard has been met.

Two years ago when the Court decided Seagate Technology, no evidence completely resolved this factual issue. How can the Service now deem the result to be arm's length with absolutely no evidence? Since the Service appears to believe that the method proposed by the Service actually produces an arm's length result, why did the Service concede Seagate and not demonstrate the arm's length result to the Tax Court and all taxpayers?

Evidence that the method in the regulation reaches an arm's length result is critically important. The proposed regulation would make any evidence of comparable transactions irrelevant. A taxpayer could not even present evidence that the result required by the regulation in fact produces a non-arm's length result. If the Service's position were correct, the Service need not fear a contrary result if the regulation allowed taxpayers to present evidence of what unrelated parties would, and do, actually do. Excluding any possibility of presenting

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evidence makes it appear the Service is concerned that arm's length evidence would contradict its position.

The commensurate with income provision enacted in 1986 does not eliminate the requirement for evidence. Congress did not direct the IRS, in the amendment to $\S 482$ or in any committee report, to adopt a per se rule without any evidence, or contrary to any evidence, that the rule was consistent with arm's length transactions. When the Service and Treasury issued Treas. Reg. § 1.482-4, dealing with transfers of intangibles, to implement the commensurate with income requirement, the Service did not ignore evidence of arm's length transactions. In fact, Treas. Reg. § $1.482-4(\mathrm{f})(2)$ requires periodic adjustments to ensure that the consideration is commensurate with the income attributable to the intangible so that the result will "be consistent with the arm's length standard and the provisions of § 1.482-1." Thus, the commensurate with income provision cannot be a sufficient justification for failing to present evidence that the method of the proposed regulation satisfies the arm's length standard.

Before the Service hardwires into the regulation that only its rule produces an arm's length result, the Service should present convincing arm's length evidence. Otherwise, the Service would make the arm's length standard for cost sharing agreements irrelevant. If unrelated parties do not share stock based compensation in cost sharing arrangements, requiring that treatment in the regulation will not make such practice arm's length.

## 2. Inconsistency with Treaty Obligations

The U.S. model treaty, adopted nine months after the current cost sharing regulations were issued, incorporates the arm's length standard in Article 9. Article 9 provides that:
[if] conditions are made or imposed between the two [related] enterprises in their commercial or financial relation that differ from those that would be made between independent enterprises, then, any profits, but for those conditions, that would have accrued to one of the enterprises, but by reason of those conditions have not so accrued, may be included in the profits of that enterprise and taxed accordingly.

The model treaty explanation states that the arm's length standard as incorporated in Article 9 applies to cost sharing agreements the same as it does to any other controlled transaction. The explanation states that "As with any other kind of transaction, when related parties enter into an arrangement [including cost sharing arrangements], the specific arrangement must be examined to see whether or not it meets the arm's length standard." The proposed changes to the cost sharing regulation would contradict this requirement. The proposed regulation proposes a rule that no examination can be made as to whether or not the arrangement meets the arm's length standard. The only examination is to whether or not the arrangement meets the requirements of the cost sharing regulation. Evidence is irrelevant.

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The model treaty explanation preserves the right of the United States and its treaty partners to make adjustments based on domestic law. However, the treaty explanation unequivocally states that such adjustments must be in "accord with the general principles of paragraph 1, i.e., that the adjustment reflects what would have transpired had the related parties been acting at arm's length." Thus, our treaty partners will consider what unrelated parties actually do. The Service's explanation directs them to do so. How will the Service convince our treaty partners that consideration of evidence of arm's length transactions is not allowed? How can the Service convince our treaty partners to ignore evidence of "what would have transpired had the parties been acting at arm's length"? This situation is particularly difficult when the Service presents no evidence in proposing the regulation that in fact the results required by the proposed regulation comports with what unrelated parties do at arm's length. The lack of evidence is likely to be troubling for the further reason that the income of the U.S. option recipients will be all taxed in the U.S., but the foreign government will be asked to provide the deduction (through cost sharing) for the option income to the U.S. option recipients.

Because our treaties require that adjustments reflect what would have transpired had the parties been acting at arm's length, evidence of arm's length transaction will be allowable for competent authority consideration for all cost sharing agreements subject to U.S. tax treaties. Issuing the proposed regulations would create problems with our treaty partners and likely would result in double taxation if the Service rigidly adhered to the per se rule of the proposed regulation. To reduce such double taxation, the proposed regulation provides a strong incentive for taxpayers to shift research and development activities outside of the United States.

## 3. The Proposed Change to the CPM Regulations is Inconsistent with the Cost Sharing Regulation

The IRS proposes to modify Treas. Reg. § 1.482-5 dealing with the comparable profits method ("CPM"). The regulation is proposed to be changed to add a sentence that "it may be appropriate to adjust the operating profit of a party to account for material differences in the utilization of or accounting for stock based compensation... among the tested party and comparable parties." Thus, with respect to the CPM, how parties account for stock based compensation is a relevant factor. For example, if a tested party accounts for stock based compensation one way and a comparable party accounts for stock based compensation a different way (for example, by not treating it as a "cost"), then the regulation would provide that it may be appropriate to adjust the operating profit to determine the arm's length transfer price. Thus, the proposed change to the CPM regulation recognizes that treatment of stock based compensation is factual and can vary.

However, under the proposed cost sharing regulation, what unrelated parties do with respect to stock based compensation is irrelevant. Regardless of what unrelated parties do with respect to stock based compensation, the cost sharing regulation requires only one specified treatment of stock-based compensation. Thus, the proposed changes are contradictory. On the one hand, evidence of what third parties do with respect to stock based compensation is relevant

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in applying CPM and may be presented, but on the other hand evidence of what third parties do with respect to stock based compensation for cost sharing is not relevant and is prohibited.

## 4. The Proposed Cost Sharing Regulations is Inconsistent with Other § 482 Regulations

The regulations under $\S 482$ provide various methods for determining the true taxable income of related parties engaged in various types of transactions. Many of these methods rely on the "costs" of the parties. For example, Treas. Reg. § 1.482-2(b) provides rules with respect to determining the arm's length price for the performance of services. If the services are not "integral," then Treas. Reg. $\S 1.482-2$ (b) provides that the charge is equal to all of the "costs" to perform the services. Thus, the regulation uses the same term, "costs," that is used in the cost sharing regulation. Yet, this regulation has been applied for dozens of years by excluding stock-based compensation. "All costs" means one thing for § 1.482-2(b), but a different thing for proposed § 1.482-7(d).

The arm's length charge under Treas. Reg. § 1.482-2(b) is deemed to be cost when services are not integral "unless the taxpayer establishes a more appropriate charge under the standards set forth in the first sentence of this subparagraph [the arm's length standard]." The proposed cost sharing regulation's per se rule contradicts Treas. Reg. § 1.482-2(b).

The § 482 regulations also provide for the cost plus method with respect to sales of tangible personal property. The arm's length price is determined based on a markup over the costs of the seller. This regulation has also been applied for many years without including stock based compensation within the definition of costs. Likewise, the comparable profits method ("CPM") of Treas. Reg. § 1.482-5 has been applied consistently by the IRS and taxpayers for eight years now by determining operating expenses without including stock based compensation. If expenses and operating expenses in Treas. Reg. § 1.482-5(d)(3) include stock-based compensation, the Service should be able to point to one transaction where that has been done when CPM was applied to determine the arm's length price. We suspect, reasonably comfortably, that in reviewing each APA issued by the IRS using the CPM, not one will have included stock based compensation in determining operating expenses.

The Service now proposes to define costs for the cost sharing regulation in a manner that is inconsistent with how the term "costs" has been interpreted and applied under the $\S 482$ regulations by the Service and by taxpayers for dozens of years.

The consequence of the inconsistent treatment of costs, requiring stock based compensation to be included in costs in the cost sharing regulations, but not doing so in other $\S 482$ regulations, will be vastly different results for similar transactions. Nevertheless, these vastly different results each will be deemed to be arm's length. For example, a company may provide R\&D services to a related party. Under the services regulation, Treas. Reg. § 1.4822(b), the amount to be charged is what an unrelated party would charge at arm's length for providing the same services. If the services are not integral, the arm's length charge is deemed

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under the regulation to be the costs. For this regulation, costs have never included stock based compensation.

If the services are integral, the price is what an unrelated party would charge based on actual evidence. Evidence of unrelated party transactions is allowable under Treas. Reg. § 1.482-2(b) to determine the arm's length charge. Unrelated parties in R\&D services contracts do not include stock based compensation in the amount of the costs. Government contracts is one example. Stock based compensation is prohibited from being part of the "costs" to be reimbursed.

With respect to a cost sharing agreement where one party is performing services and the other party is reimbursing for the services, under the proposed regulation stock based compensation must be included. The arm's length charge under the cost sharing agreement would be significantly different from the charge under an R\&D services contract. The transactions are essentially similar, namely, one party performing services and the other party paying for the costs of the services. The similar nature of the types of transactions is demonstrated by the fact that in Seagate the Service argued its position under both the services and the cost sharing regulations. Under the proposed regulation, the vastly different charges for similar transactions would both be at arm's length.

The proposed cost sharing regulations imposition of a specific rule, regardless of evidence of unrelated party transaction, also contradicts Treas. Reg. § 1.482-1(f)(2)(ii). This provision states that the Service will evaluate the result of transactions actually structured unless the structure lacks economic substance. The district director may consider the alternatives available to the taxpayer in determining whether the terms of the controlled transaction would be acceptable to uncontrolled taxpayers faced with the same alternatives and operating under comparable circumstances. Mandating a rule in the regulations that causes similar transactions to have vastly different arm's length results contradicts this provision. The alternatives available may consist of non-stock option transactions.

The proposed regulation contradicts other $\S 482$ regulation provisions by interpreting the same word differently, and it provides for different results that each are deemed to be arm's length. Because of these contradictions, the proposed regulation should not be issued.

## 5. The Proposed Changes to the Cost Sharing Regulation Inherently Conflict with the Best Method Rule

As stated above, the proposed cost sharing regulation states that satisfying all of the requirements of the cost sharing regulation will be deemed to produce a result consistent with the best method rule. However, the change to the cost sharing regulation directly contradicts the best method rule.

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The best method rule states that it is the method that "under the fact and circumstances" provides the most reliable measure of arm's length result. The changes to the cost sharing regulation eliminate any consideration of facts and circumstances concerning what is a "cost" and whether that sharing of a "cost" is consistent with the conduct of unrelated parties.

The best method rule also states that there "is no strict priority of methods and no method will invariably be considered more reliable than others." The proposed regulation contradicts this statement by stating that the one and only method in the regulation will produce an arm's length result and all other methods will per se produce non-arm's length results. The required method of the cost sharing regulation will invariably be considered to be, not only more reliable than others, but the only reliable method.

Finally, the best method rule states that "if another method subsequently is shown to produce a more reliable measure of an arm's length method, such other method must be used." The proposed changes to the cost sharing regulation, however, prevent any consideration of any other method and prevent any assertion by taxpayers that any other method produces a more reliable measure of an arm's length result.

Thus, rather than coordinating with the best method rule, the proposed changes to the regulation override the requirements of the best method rule and directly contradict it.

## 6. Even if Stock Options Generate a "Cost," They are Not the Type of Cost That Should be Cost Shared

The proposed changes to the cost sharing regulation, like the pre-1995 cost sharing regulation, purport to require the sharing of "all" costs. The incorporation of the definition of "operating expenses" from Treas. Reg. § 1.482-5(d)(3), however, excludes interest expense and income taxes from costs to be shared. Under Treas. Reg. § $1.861-8$, interest and state income taxes are allocated to all types of income, including income from products generated from research and development activity. According to Treas. Reg. § 1.861-8(b)(1), "the rules emphasize the factual relationship between the deduction and a class of gross income." Thus, for purposes of determining the amount of taxable income in various categories from U.S. and foreign sources, interest expense and state income taxes are allocated to income from product sales generated by research and development. There is some relationship, accordingly, between interest expense and state income taxes and research and development activities according to Treas. Reg. § 1.861-8.

Nevertheless, such costs are specifically excluded from "all" costs to be shared under a cost sharing agreement. In 1988, the § 482 White Paper suggested that interest expense be included as a "cost" to be shared in a cost sharing agreement. As a result of comments, the Service stated "The most frequently expressed comment is that shared costs should not include a portion of overall interest expense allocated and apportioned to research and development activities in accordance with U.S. expense allocation principles."

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Two of the reasons provided in comment letters with respect to the White Paper why interest expense should not be cost shared were that "interest expense is a cost of capital item," and "at arm's length, interest expense would not be shared since the payor would have no control over the extent to which a fellow participant might choose to leverage its operations after entering into a cost sharing arrangement." The Service in considering comments about interest expense stated "In addition, it was noted that overall interest expense would not be shared among parties dealing at arm's length since unrelated parties would have no control over how highly leveraged that participant might choose to become. The comments were very persuasive, and it is recommended that overall corporate interest not be included as a cost to be shared."

The same analysis applies with respect to stock options. Issuing stock options merely changes the portion of the corporation owned by each shareholder. As such, the "cost" of stock options (if any) is like interest, which is a cost of the capital.

Moreover, just as an unrelated party would have no control over how highly leveraged a participant might choose to become, an unrelated party would have no control over how much another company's stock might increase. This is particularly so since stock prices change for a variety of reasons that are not directly related to the particular company. For the same reason as interest expense, stock based compensation should not be included in cost sharing. At the very least, the IRS should explain why the previous comments relating to treatment of interest expense that "were very persuasive," are not equally applicable to stock options.

We also note that despite the 1986 committee report language about sharing "all" costs, the IRS and Treasury specifically excluded two costs, interest expense and state income tax, that relate to research and development activities. Thus, the committee reports cannot be the basis that stock based compensation must be included in cost sharing agreements. In other words, because the IRS has in 1995 already excluded two types of costs from cost sharing, the use of the word "all" by Congress cannot mandate sharing stock option costs, particularly when there is no evidence that unrelated parties include such costs.

## 7. Determining the Relation of Stock Based Compensation to Research and Development Activities Based on the Grant Date is Inconsistent with Other Treatment

Prop. Treas. Reg. § 1.482-7(d)(2)(ii) provides that the determination of whether stock based compensation is related to the intangible development area is made as of the date the stock based compensation is granted. Thus, if a person performs research and development that is subject to cost sharing on the date of grant, the stock based compensation is cost shared. Conversely, if the person is not performing research and development on such date, the amount is not cost shared.

Such treatment of stock based compensation and its relationship to the activities performed by the recipient, contradicts the Service's treatment in other areas. For example, with
respect to sourcing of income with respect to stock options, the Service has issued rulings and field service advice that relate the income over the period for which the employee performs services subject to the option. IRS Legal Memorandum 200215010 (Jan. 2, 2002); 1996 FSA Lexis 183 (Mar. 31, 1996); 1995 FSA Lexis 45 (Aug. 31, 1995), LTR 9037008 (May 29, 1990). The period is either the time of grant until the time of exercise or the time of grant until the option becomes exercisable. The treatment of the proposed regulation directly contradicts the Service's previous analysis of the relation between stock option income and the services performed by the employee.

Based on the proposed cost sharing regulation, a taxpayer could reasonably determine the source of income from stock options based on where the services are performed at the time of grant. All of the services subsequent to the date of grant would be excluded from consideration. That would be a significant change. The Service should explain why it is adopting a rule inconsistent with its current position relating to stock options for source of income.

## Conclusion

The proposed changes adopt a per se rule without any evidence of arm's length treatment. Mandating a result does not make the result arm's length. Mandating a result without regard to evidence merely shows the Service has rejected the arm's length standard for cost sharing. If the Service believes the proposals produce an arm's length result, the Service should provide the evidence to convince taxpayers. The proposed changes contradict many other provisions of the $\S 482$ regulations. The regulations conflict with the U.S.'s treaty obligations. The proposed regulation should not be issued.

We request to speak at the public hearing scheduled for November 20, 2002.
Sincerely,


Ronald B. Schrotenboer



William F. Colgin

March 18, 2003

Mr. B. John Williams
Chief Counsel
Internal Revenue Service
1111 Constitution Avenue, NW
Washington, DC 20224
Dear B. John:
As a follow up to the discussion at the recent FEI meeting and your March 4, 2003 email, FEI surveyed Tax Committee members for examples of cost sharing agreements between unrelated parties that exclude compensatory options from shared costs.

An example, applicable to government contractors, is contained in the Federal Acquisition Regulations. The U.S. government does not permit government contractors to seek reimbursement for stock option costs (FAR 31.205-6(i)(I)).

Joint operating agreements (JOA) are common in the.petroleum industry due to the high financial burdens involved in offshore development. In that regard, the industry relies heavily on the Council of Petroleum Accountant Societies (COPAS) in modeling JOA accounting procedures and auditing the accounting procedures of parties to the JOA agreement. Attached is COPAS MFI-37 which recommends against charging stock options (see final paragraph). Also, attached is COPAS MFI-19 which is an accounting procedure heavily used by the industry. Referning to the top of page 18, employee benefits chargeable to the joint account are those associated with an established plan that are made available to all employees; thus, costs of benefits available only to executives, certain employees or groups on a selective basis are not chargeable to the joint account.

There was a reluctance among committee members to provide copies of actual cost sharing agreements with third parties, which are highly confidential due to competitiveness concerns. Even a heavily redacted contract would divulge terms and conditions bargained for with a third party business partner and would require the partner's agreement to release. Requests of that nature have the potential for giving the partner an excuse to raise issues important to it and, therefore, are frowned on by the business people who would have to agree to the request.

Hopefully, the examples above are sufficient to prove the point that stock options are not taken into account in cost calculations pursuant to third party cost sharing agreements. As a matter of common business practice, no businessman worth his salt would agree to reimburse a cost which could not be calculated with reasonable certainty and which could escalate dramatically due to forces outside the cost sharing agreement.

If you have questions, please contact Mark Prysock or me.
Sincerely,

JOL/cw
Attachments


# CHARGEABILITY of INCENTIVE COMPENSATION PROGRAMS 

## MODEL FORM INTERPRETAION <br> Publication/Revision Date --- July 1997 <br> Board Approved

MFI-37

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# COPAS MODEL FORM INTERPRETATION \#37 

## ISSUED: July 24, 1997 <br> SUBJECT: Chargeability of Incentive Compensation Programs

## PREFACE:

This COPAS Interpretation has been reviewed by the Petroleum Accountants Societies through representation on the Joint Interest Standing Committee and approved by the Board of Directors of the Council of Petroleum Accountants Societies and recommended as a guide in accounting for joint interest operations.

## PROBLEM:

Many companies are implementing Incentive Compensation Programs (ICPs) that motivate and reward employees for contributing to the company's success. The ICPs are often based on increases in profitability and/or productivity of a business unit, or entire company. ICPs are replacing or supplementing annual merit raises. COPAS Accounting Procedures from 1962 through the present and the associated bulletins provide for salaries and wages to be directly chatged to the Joint Account, whereas, the Employee Benefits provision of Accounting Procedures and COPAS Interpretation No. 11 include bonuses as part of the employee benefit burden rate. The changing nature of employee compensation has led to a variety of methods being used to charge ICPs. These range from charging the costs directly, to incorporating ICPs within the employee benefits rate, or operator's overhead.

## INTERPRETATION:

ICPs reward employees based on predetermined metrics such as increased production and/or profitability. They are an integral part of salary programs that are designed to motivate employees, increase productivity and promote teamwork. ICPs may include but are not limited to variable pay, pay at risk, pay for performance and gainsharing. COPAS recommends that ICPs paid in cash be directly charged to the Joint Account for employees whose salaries and wages are chargeable, pursuant to the Accounting Procedure/Operating Agreement regardless of whether the employee received a merit/cost of living/general increase. Such programs must be a formally documented policy of the operator.

The direct charge to the Joint Account for IMPs should be on the same basis that the employee's salary is charged as described in the applicable Accounting Procedure attached to the Operating Agreement. In administering such ICP charges, it is recognized there may be a timing difference between when the ICP is earned and when it is paid to the employees. A number of different accounting methods may be employed in making such charges to the Joint Account. If an employee is permanently assigned to a particular property(ies), the Operator may choose to charge the entire amount in the month in which payment is made to the employees. Another method is to increase the labor burden by a percentage equal to the ICP, to spread the award evenly over the entire year, and thus not unduly burden any one month's operating cost for a property. This may be done on a prospective basis to properties served in the year the award is paid, even though it was earned in the prior year. Alternatively, the ICP may be charged in the year it is earned on the basis of forecasts, provided there is reasonable conformity or matching of costs between the ICP forecast and the actual award paid.

These methods may also be employed with respect to drilling, construction personnel and Technical Employees, whose time is charged to specific properties/projects; however, it is recommended that the ICP be charged prospectively to all properties/projects served. As a result the ICP is charged only to the extent the employee's salary and wages are directly chargeable to a specific property/project. That portion of their time that is not charged to the Joint account (overhead) also bears an equitable share of the ICP.

Any of the above methods are acceptable, provided the Operator is consistent and reasonable in its application.
5 COPAS does not recommend directly charging the Joint Account for IMPs in the form of a royalty, overriding royalty, stock or stock option. Typically, operating agreements provide that any excess or subsequently created burdens are to be borne solely by the patty which created the burden. This would preclude the charging of most royalty or overriding royalty awards. Stock options do not lend themselves to a reasonable method of calculating value.


EG-106359-02
REGULATIONS UNIT CC:ITA:RU

OCT 312002

CC:ITA:RU (REG-106359-02)
Room 5226
Internal Revenue Service
POB 7604
Ben Franklin Station
Washington, DC 20044
RE: Proposed Cost Sharing Regulations Under Section 482, Relating To The Treatment Of Stock-based Compensation Expenses (REG - 106359-02)

The Information Technology Association of America (ITAA) is a trade association representing the broad interests of U.S. businesses engaged in the Information Technology (IT) industry. With over $\$ 800$ billion in sales in 2001, IT is one of America's fastest growing industries, encompassing computers, software, telecommunications products and services, Internet and online services, systems integration, and professional services companies. We are submitting these comments on behalf of the Information Technology Association of America (ITAA), the trade association representing the broad spectrum of the world-leading U.S. information technology industry, in response to the Notice of Proposed Rulemaking published in the Federal Register on July 29, 2002 (67 Fed. Reg. 48997), relating to the treatment of stock-based compensation for purposes of the rules governing qualified cost sharing arrangements and for purposes of the comparability factors to be considered under the comparable profits method ("the proposed regulations").

## I. Proposed Regulations Fail To Implement an Arm's Length Standard

The ITAA is concerned that the proposed regulations depart from the arm's length principle by arbitrarily requiring related parties to share stock-based compensation costs even though the Internal Revenue Service ("IRS") itself has been unable to find factual evidence that this occurs in cost sharing arrangements between unrelated parties. The result mandated by the proposed regulations ignores the reality that taxpayers regularly enter into cost sharing arrangements with unrelated parties without sharing stock-based compensation costs.

## Information Technology Association of America

1401 Wilson Blvd., Suite 1100, Arlington, VA 22209-2318 ■ Phone: (703) 522-5055 Fax: (703) 525-2279

In recent litigation, the IRS itself was unable to establish a factual basis for the result that the proposed regulations would require. ${ }^{1}$ Moreover, while ITAA members have engaged in numerous joint venture agreements with unrelated parties, we are not aware of a situation where ITAA members have ever entered into arrangements that treat stockbased compensation as a shared cost. Thus, the proposed regulation's treatment of stockbased compensation as a shared cost is inconsistent with longstanding practice among uncontrolled parties.

## II. Proposed Regulations Raise Concerns About U.S. Tax Treaties

A central tenet of U.S. tax treaty policy is that the results that would have been obtained in unrelated party situations should govern the tax results between related parties. ${ }^{2}$ In this regard, the Technical Explanation of Article 9 of the 1996 U.S. Model tax treaty includes the statement that it "incorporates...the arm's-length principle reflected in the U.S. domestic transfer pricing provisions, particularly Code section 482."3

Any deviation from the arm's length standard would weaken the U.S. tax treaty network. The proposed regulations are a unilateral revision by the United States of the arm's length standard for cost sharing arrangements, and there is no reason to expect that our treaty partners would accept the proposed treatment of stock-based compensation expenses.

ITAA very much appreciates the opportunity to submit comments and your consideration of those comments. If you have any questions, please contact me, or Bartlett Cleland of my staff at (703) 284-5310.

Sincerely,


Harris N. Miller
President

[^56]$\qquad$
REG-106359.02
REGULATIONS UNIT
From: postoffice@www.qai.irs.gov CC:ITA:RU
Sent: Monday, October 28, 2002 5:03 PM
To: guy.r.traynor@irscounsel.treas.gov
Subject: Comment from Web Site
From: ksalaets@itic.org
reg=Compensatory Stock Options
category=taxregs
email=ksalaets@itic.org
OCT 292002

Begin Comment Text $\qquad$

## TO WHOM IT MAY CONCERN:

I am writing on behalf of the Information Technology Industry Council to inform you that we have concerns with the proposed regulations regarding compensatory stock options.
Unfortunately, our comments will not be finalized until later this week. Accordingly, we will be submitting them after the October 28, 2002 deadline for comments, but hope that you will still give them due consideration upon receipt.

Sincerely,
Ken J. Salaets
Director
Information Technology Industry Council

End Comment Text

## VIA ELECTRONIC MAIL AND HAND DELIVERY

Commissioner, Internal Revenue Service
P.O. Box 7604

Ben Franklin Station
Washington, DC 20044

## ATTN: LaNita Van Dyke

CC:ITA:RU (REG-106359-02)
Room 5226
Dear Commissioner:
We respectfully submit the following comments on Treasury Regulations that are proposed to be promulgated under section 482 of the Internal Revenue Code of 1986, as amended (the "Code"), governing compensatory stock options under qualified cost sharing arrangements (the "proposed regulations"). KPMG LLP ("KPMG") submits these comments in its own name and on behalf of leading U.S.-based multi-national corporations. These companies and their affiliates participate in qualified cost sharing arrangements and make significant use of compensatory stock options in their business operations, including compensating employees that develop intangibles.

Our comments are specifically directed to the conflict between the proposed regulations and the arm's length principle of section 482 and the existing definition of a "cost" in the section 482 regulations. We may submit supplemental comments on these or other issues relating to the proposed regulations.

## I. THE PROPOSED REGULATIONS VIOLATE THE FUNDAMENTAL ARM'S LENGTH PRINCIPLE UNDERLYING SECTION 482

The fundamental principle underlying section 482 is that income and deductions generated by a related party transaction must be determined as if an unrelated party engaged in the same or a comparable transaction (the "arm's length standard"). The section 482 regulations provide that the arm's length standard is to be applied in "every case." Thus, the overriding principle of section 482 is that transactions between related parties must be treated in the same manner as transactions between unrelated parties.

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## RPPME

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October 28, 2002
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While section 482 permits the Internal Revenue Service ("IRS") to require related parties to allocate income and expenses as if they were unrelated parties, section 482 does not give the IRS the authority to require related parties to allocate income and expenses based on "costs" that do not exist in transactions between unrelated parties. Unrelated third parties do not include compensatory stock options in the pool of "costs" to be shared in cost sharing arrangements and analogous joint ventures. Consequently, the inclusion of such costs in the proposed regulations is not supported by any arm's length third party transactions, violates the arm's length and commensurate with income ("CWI") principles and exceeds the IRS's authority under section 482. Our assertion that third parties do not include compensatory stock options in the pool of costs to be shared is based on the following.

First, the research and experience of our tax and economic services professionals has not disclosed any third party cost sharing or similar arrangements that include compensatory stock options in the pool of costs to be shared - either explicitly by including options or implicitly by adjusting other terms of the cost sharing agreement. Independent parties to a cost sharing agreement would not agree to obligate themselves to share in uncontrollable costs.

Second, our professionals know of a number of joint ventures between unrelated parties that specifically identify costs to be shared and do not include stock option costs. The parties to these ventures consider the impact of stock options during their negotiations and affirmatively agree not to share those "costs." We are also aware of a high-profile media joint venture between two of America's leading companies in which one party is responsible for ongoing computer software development and is reimbursed for a portion of those costs by the joint venture. Those reimbursed software development costs do not include any "costs" associated with stock-based compensation. Moreover, the party bearing the software development costs was not indirectly reimbursed for "costs" associated with stock-based compensation pursuant to other terms of the joint venture. These ventures demonstrate that unrelated parties do not act in accordance with the proposed regulations.

Third, the IRS admitted in the United States Tax Court proceeding Seagate Technology, Inc. v. Commissioner that it is not aware of any cost sharing agreements between unrelated parties in which stock option expenses are included in the cost base. ${ }^{2}$ During the same proceeding (which the parties ultimately settled), the IRS's own expert also conceded that "unrelated parties are unlikely explicitly to include a measure of the cost of employee stock

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## KPRMG

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options in the terms of a transaction."3 Based on these concessions, there is no "arm's length" basis for the treatment of options in the proposed regulations.

Fourth, the proposed regulations are inconsistent with the CWI standard that must be applied to intangible transfers under section $482 .{ }^{4}$ As an initial matter, the proposed regulations allow taxpayers to elect to determine the "cost" of compensatory stock options based on a number of factors that are not dependent on the income generated by the developed intangibles. ${ }^{5}$ The methods of valuation for compensatory stock options under the proposed regulations depend on factors including the section 83 deduction claimed by the taxpayer and, in many cases, on the value assigned to the options for financial statement purposes. ${ }^{6}$ Determining the appropriate valuation method based on variables that do not relate to income generated by the developed intangibles is inherently inconsistent with the best method rule. ${ }^{7}$ Moreover, the "cost" of stock options computed under the proposed regulations will lead to cost allocations that do not comport with the CWI standard. If a cost-sharing participant has multiple lines of business or products and its stock price rises because of products that are not covered by the cost sharing arrangement, the "cost" of its compensatory stock options likely will rise. Under the proposed regulations, other participants may be required to bear those "costs." Such a result lowers the apparent profits from sales relating to the cost-shared intangibles and imposes costs on participants that are unrelated to the intangibles developed through cost sharing. ${ }^{8}$ The proposed regulations require cost allocations that do not result in a CWI transfer of intangibles and thus fail to reach an arm's length result.

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Finally, the federal government itself refuses to share, or otherwise bear, the cost of stock options issued by third parties. The Federal Acquisition Regulations System (FARS), which governs contracts for goods and services with all executive departments and agencies, expressly prohibits government contractors from charging for stock-based compensation. The regulations relating to allowable costs for personal compensation apply to "[c]ompensation based on changes in prices of corporate securities or corporate security ownership, such as stock options, stock appreciation rights, phantom stock plans, and junior stock conversions." These regulations specifically state that "[a]ny compensation which is calculated, or valued, based on changes in the price of corporate securities is unallowable." ${ }^{10}$ Thus, third parties are not permitted to charge the government for stock-based compensation. Similarly, outside the government contract area, companies providing research and development (R\&D) services to third parties pursuant to a cost-plus contractual arrangement do not include an allowance for the "cost" of stock options in the fees charged for the R\&D services. ${ }^{11}$ These regulations and business practices provide further evidence that third parties do not charge the "cost" of compensatory stock options.

## II. COMPENSATORY STOCK OPTIONS ARE NOT "COSTS" WITHIN THE MEANING OF THE EXISTING SECTION 482 REGULATIONS

For purposes of the cost sharing regulations, costs include "all of the costs incurred by [a] participant related to the intangible development area." 12 A "cost" is generally synonymous with an expense for section 482 purposes. ${ }^{13}$ A corporate cost-sharing participant does not incur a cash expense equal to the option spread (the difference between the exercise price and the strike price) when a stock option is issued and does not incur any additional cash expenses when such option is exercised. Indeed, the corporation receives cash when a stock option is exercised and does not make any cash outlays with respect to the option spread. ${ }^{14}$ To the extent an economic expense has been incurred, the shareholders of the corporate cost-sharing participant bear that cost because share value is diluted when additional shares are issued. ${ }^{15}$ Accordingly, the "cost" of compensatory

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## KAME

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stock options is borne by the shareholders of the participants and should not be included in the pool of costs to be shared by the participants.

The fact that the stock options must be accounted for in audited financial statements does not mean options are "costs" from a tax perspective. The main objective of financial statements is to assure consistency of treatment between companies so that investors believe they are comparing "apples to apples" in deciding how to allocate their capital and to assure transparency by computing stock option value in a manner that is simple and easy to understand by investors. ${ }^{16}$ Yet, for cost sharing purposes where the arm's length standard must be applied, independent parties acting at arm's length in negotiating terms applicable to particular products or product lines will not be constrained by public financial statements. ${ }^{17}$ Accordingly, the financial statement treatment of compensatory stock options does not govern unrelated parties and should not dictate arm's length treatment by related parties.

The proposed regulations (1) conflict with the arm's length standard of section 482 by requiring related parties to act in a manner that is inconsistent with unrelated party transactions and by failing to achieve cost allocations that are consistent with CWI and (2) incorrectly treat compensatory stock options as a participant "cost." Based on the foregoing, the proposed regulations should be withdrawn. If you have any questions or require additional information, please contact the undersigned at (202) 533-3000 or Stephen Bates at (415) 743-5422. Thank you for your consideration.

Sincerely,


Steven R. Lainoff
Partner-in-Charge
International Corporate Services
KPMG Washington National Tax

Clark J. Chandler
Partner


Economic Consulting Services
KPMG LLP (Washington, DC)

[^61]
## KPRAG

Commissioner Internal Revenue Service
October 28, 2002
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cc: B. John Williams, Jr., Chief Counsel, Internal Revenue Service Pamela F. Olson, Assistant Secretary for Tax Policy, Department of the Treasury Barbara Angus, International Tax Counsel, Department of the Treasury


[^0]:    ${ }^{1}$ Unless otherwise noted, all references herein to the Treasury Regulations are with respect to regulations that were effective for petitioner's taxable years ending December 31, 2004, December 30, 2005, December 29, 2006, and December 28, 2007.

[^1]:    ${ }^{1}$ Except as otherwise noted, section references are to the Internal Revenue Code of 1986, as amended, or to the Treasury Regulations that were effective for petitioner's taxable years ending December 31, 2004, December 30, 2005, December 29, 2006, and December 28, 2007.

[^2]:    ${ }^{1}$ Transfer Pricing Guidelines For Multinational Enterprises And Tax Administrations" (adopted July 1999, supplemented March 1996 and September 1997).

[^3]:    ${ }^{2}$ Treas. Reg. 1.482-1(b)(1) ("In determining the true taxable income of a controlled taxpayer, the standard to be applied in every case is that of a taxpayer dealing at arm's length with an uncontrolled taxpayer")

[^4]:    ${ }^{3}$ See, e.g., Industry Directive on Stock Options and Cost Sharing Agreements issued by Thomas W. Wilson, Jr., IRS Industry Director for Communications, Technology and Media on January 25, 2002. See also FSA 200003010.
    ${ }^{4}$ See Respondent's Memorandum of Facts and Law In Support of His Objection to Petitioner's Motion for Partial Summary Judgment on the Section 482 Cost Sharing Stock Option Issue, Seagate Technology, Inc. v. Commissioner, T.C. Docket No. 15086-98 (July 31, 2000).
    ${ }^{5}$ See Respondent's Cross-Motion for Partial Summary Judgment on the I.R.C. § 482 Cost Sharing StockBased Compensation Issues and supporting Brief, Xilinx Inc. v. Commissioner, TC Docket No. 4142-01 (March 5, 2002).

[^5]:    ${ }^{6}$ See Memorandum Brief in Support of Respondent's Notice of Object to Petitioner's Supplement to Partial Summary Judgment Motion With Respect to the Stock Option Issue, Xilinx Inc. v. Commissioner, TC Docket No. 4142-01 (September 11, 2002) at 34-36.

[^6]:    ${ }^{7}$ Attached to Amylin Pharmaceuticals Inc., Form 10-Q (March 31, 1997), available (with all attachments) at the SEC's Edgar website at http://www.sec.gov/Archives/edgar/data/881464/0000936392-97-000714.txt.

[^7]:    ${ }^{8}$ To date, the HML option remains outstanding because Phase II clinical trials have not yet begun. See Amylin Pharmaceuticals Inc., Form 10-K405 (December 31, 2001) at page 6.

[^8]:    ${ }^{9}$ Amylin Pharmaceuticals Inc., Form 10-K405 (December 31, 1997), Exhibit 13.1 at page 6.
    ${ }^{10}$ Amylin Pharmaceuticals Inc., Form 10-K405 (December 31, 2001) at page F-8.

[^9]:    ${ }^{11}$ This contrasts with Amylin's "Collaboration Agreement" with Johnson \& Johnson's Lifescan, Inc. subsidiary, dated June 20, 1995, where both a "Stock Purchase Agreement" and a "Loan and Security Agreement" were executed concurrently. Listed in Amylin's SEC filings as Exhibits 10.17, 10.18 and 10.19, attached to Amylin Pharmaceuticals Inc., Form 10-Q (June 30, 1995).

[^10]:    ${ }^{12}$ Even in the context of marketable options, the accuracy of Black-Scholes method has increasingly been questioned as it depends on a number of assumptions, any one of which can be a weak reed. At best, the Black-Scholes value might place a high ceiling on the value of employee stock options. See, e.g., Tim Reason, "Stock Options: The Value Proposition", CFO Magazine, October 1, 2002.

[^11]:    ${ }^{13}$ Statement of Senator George Allen on Senate Floor Regarding Accounting Reform Bill and Stock Options, Cong. Rec. 56735, 6744-46 (daily ed. July 15, 2002).

[^12]:    ${ }^{1}$ Transfer Pricing Guidelines For Multinational Enterprises And Tax Administrations" (adopted July 1999, supplemented March 1996 and September 1997).

[^13]:    ${ }^{2}$ Treas. Reg. 1.482-1(b)(1) ("In determining the true taxable income of a controlled taxpayer, the standard to be applied in every case is that of a taxpayer dealing at arm's length with an uncontrolled taxpayer")

[^14]:    ${ }^{3}$ See, e.g., Industry Directive on Stock Options and Cost Sharing Agreements issued by Thomas W. Wilson, Jr., IRS Industry Director for Communications, Technology and Media on January 25, 2002. See also FSA 200003010.
    ${ }^{4}$ See Respondent's Memorandum of Facts and Law In Support of His Objection to Petitioner's Motion for Partial Summary Judgment on the Section 482 Cost Sharing Stock Option Issue, Seagate Technology, Inc. v. Commissioner, T.C. Docket No. 15086-98 (July 31, 2000).
    ${ }^{5}$ See Respondent's Cross-Motion for Partial Summary Judgment on the I.R.C. § 482 Cost Sharing StockBased Compensation Issues and supporting Brief, Xilinx Inc. v. Commissioner, TC Docket No. 4142-01 (March 5, 2002).

[^15]:    ${ }^{6}$ See Memorandum Brief in Support of Respondent's Notice of Object to Petitioner's Supplement to Partial Summary Judgment Motion With Respect to the Stock Option Issue, Xilinx Inc. v. Commissioner, TC Docket No. 4142-01 (September 11, 2002) at 34-36.

[^16]:    ${ }^{7}$ Attached to Amylin Pharmaceuticals Inc., Form 10-Q (March 31, 1997), available (with all attachments) at the SEC's Edgar website at http://www.sec.gov/Archives/edgar/data/881464/0000936392-97-000714.txt.

[^17]:    ${ }^{8}$ To date, the HML option remains outstanding because Phase II clinical trials have not yet begun. See Amylin Pharmaceuticals Inc., Form 10-K405 (December 31, 2001) at page 6.

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    ${ }^{10}$ Amylin Pharmaceuticals Inc., Form 10-K405 (December 31, 2001) at page F-8.

[^19]:    ${ }^{11}$ This contrasts with Amylin's "Collaboration Agreement" with Johnson \& Johnson's Lifescan, Inc. subsidiary, dated June 20, 1995, where both a "Stock Purchase Agreement" and a "Loan and Security Agreement" were executed concurrently. Listed in Amylin's SEC filings as Exhibits 10.17, 10.18 and 10.19, attached to Amylin Pharmaceuticals Inc., Form 10-Q (June 30, 1995).

[^20]:    ${ }^{12}$ Even in the context of marketable options, the accuracy of Black-Scholes method has increasingly been questioned as it depends on a number of assumptions, any one of which can be a weak reed. At best, the Black-Scholes value might place a high ceiling on the value of employee stock options. See, e.g., Tim Reason, "Stock Options: The Value Proposition", CFO Magazine, October 1, 2002.

[^21]:    ${ }^{13}$ Statement of Senator George Allen on Senate Floor Regarding Accounting Reform Bill and Stock Options, Cong. Rec. 56735, 6744-46 (daily ed. July 15, 2002).

[^22]:    1 The provision was altered under the Revenue Act of 1924 to allow taxpayers as well as the Commissioner to request consolidation. The 1926 Act was similar.
     $1^{\text {st }}$ Sess. (May 1, 1928), 1931-1 C-B. 409, 426; See also Nat'l Securities Corp. v. Commissioner, 137 F. 2d 600 ( $3^{\text {rd }}$ Cir. 1943); Asiatic Petroleum Co. v. Commissioner, 79 F.2d 234 ( $2^{\text {nd }}$ Cir. 1935).

    3 House Ways and Means Committee Report on the Revenue Act of 1928, H.R. Rep. No. 2, $70^{\text {th }}$ Cong., $1^{\text {st }}$ Sess. 16-17 (1928).

[^23]:    4 Treasury Regulations 86, Under Revenue Act of 1934, Article 45-1 (emphasis added).
    ${ }^{5}$ See Treas. Reg. § 1.482-1, T.D. 6595, 1962-1 C.B. 43 (Apr. 14, 1962) (adoption of the section 45 regulations under Section 482 of the Internal Revenue Code of 1954).
    6 Treasury first issued proposed regulations under section 482 on April 1, 1965. These proposed regulations were withdrawn on August 2, 1966, and a new notice of proposed regulations was published (31 F.R. 10394).
    ${ }_{8}$ See Prop. Treas. Reg. § 1.482-2, 31 F.R. 10394 (Aug. 2, 1966).
    ${ }^{8}$ T.D. 6952, 1968-1 C.B. 218.

[^24]:    9 Tax Reform Act of 1986, P.L. 99-514, § 1231(e)(1).
    ${ }^{10}$ Notice 88-123, 1988-2 C.B. 458, 458.
    ${ }^{11}$ Id.
    ${ }^{12}$ Id., at 472 (footnotes omitted)(emphasis added).
    ${ }^{13}$ Notice of Proposed Rulemaking (INTL-0372-88; INTL-0401-88), 57 F.R. 3571 (Jan. 30, 1992), corrected by 57 F.R. 27716.
    ${ }^{14}$ Intercompany Transfer Pricing Regulations Under Section 482, T.D. 8470, 1993-1 C.B. 90, 91

[^25]:    (emphasis added) (the "1993 temporary regulations").
    ${ }^{15}$ Id., at 92 (emphasis added).
    ${ }^{16}$ T.D. 8552, 1994-2 C.B. 93, 98.

[^26]:    ${ }^{17}$ Id., at $98-99$ (emphasis added).
    ${ }^{18}$ Grenada Industries, Inc. v. Commissioner, 17 T.C. 231, 256 (1951), aff'd 202 F.2d 873 ( $5^{\text {th }}$ Cir. 1953).
    ${ }^{19}$ Virginia Metal Products, Inc. v. Commissioner, 33 T.C. 788, 800 (1960), aff'd in part and rev'd in part on another matter, 290 F.2d 675 ( $3^{\text {rd }} \mathrm{Cir}$. 1961).

[^27]:    ${ }^{20}$ Aiken Drive-In Theatre Corporation v. United States, 281 F.2d 7, 9-10 ( $4^{\text {th }} \mathrm{Cir}, 1960$ ), quoting Commissioner v. Chelsea Products, Inc., 197 F.2d 620, 623 (3 ${ }^{\text {rd }}$ Cir. 1952).
    ${ }^{21}$ See, e.g., U.S. Steel Corp. v. Commissioner, 617 F.2d 942 (2 ${ }^{\text {nd }}$ Cir. 1980); Davis v. United States, 282 F.2d 623 ( $10^{\text {th }}$ Cir. 1960); Simon J. Murphy Company v. Commissioner, 231 F.2d 639 ( $6^{\text {th }}$ Cir. 1956); Bausch \& Lomb, Inc. v. Commissioner, 92 T.C. 525 (1989) aff'd 933 F.2d 1084 (2 $2^{\text {nd }}$ Cir. 1991); Virginia Metal Products, supra.
    ${ }_{22}$ White Paper, supra note 10 at 493.
    ${ }_{24}$ Prop. Treas. Reg. § 1.482-2(d)(4) (1966).
    ${ }^{24}$ Compare Prop. Treas. Reg. § 1.482-2(d)(4) (1966) with Prop. Treas. Reg. § 1.482-2(g) (1992), and Treas. Reg. § 1.482-7.
    ${ }_{26}$ Prop. Treas. Reg. § 1.482-2(d)(4)(iv)(1966).
    ${ }^{26}$ Prop. Treas. Reg. § 1.482-2(d)(4)(i)(1966).

[^28]:    27 Treasury Department Release F-1217 (April 16, 1968).
    ${ }^{28}$ See Treas. Reg. § 1.482-1(b)(1).
    ${ }^{29}$ On September 20, 1996, the Treasury Department amended and restated the United States Model Income Tax Convention (the "U.S. Model Tax Convention") and the Technical Explanation to the U.S. Model Tax Convention (the "U.S. Model Technical Explanation").

[^29]:    ${ }^{30}$ U.S. Model Technical Explanation, supra, note 29, Commentary to Article 9, Paragraph 1 (emphasis added).
    ${ }^{31}$ Organization for the Economic Cooperation and Development, Commentary to the 1992 OECD Model Convention on Income and Capital (the "OECD Commentary") at C(9)-1 (1995).
    ${ }^{32}$ Organization for Economic Cooperation and Development, Transfer Pricing Guidelines for Multinational Enterprises and Tax Administration (2001) (the "OECD Guidelines").
    ${ }^{33}$ Id. at § 8.26 (emphasis added). See also OECD Guidelines, Chapter 8 (F), "Recommendations for structuring and documenting CCAs" at § 8.40 (requiring CCAs to conform to the arm's length principle and identifying conditions normally expected at arm's length).
    ${ }^{34}$ Id. at § 8.8 (emphasis added).

[^30]:    ${ }^{35}$ Convention for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect

[^31]:    ${ }^{54}$ OECD Guidelines, supra note 32, at §1.7.
    ${ }^{55}$ See FSA 200103024 (Oct. 17, 2000) (the 1995 cost sharing regulations); Seagate Technology, Inc. v. Commissioner, 80 T.C.M. (CCH) 912 (2000) (1991 \& 1992 tax years under the 1968 regulations); FSA 2000003010 (Oct. 18, 1999) (same); 1997 FSA LEXIS 311 (Aug. 1, 1997) (the 1968 regulations); Adaptec, Inc. v. Commissioner, T.C. Dkt. No. 3480-01 (1997 tax year under the 1995 cost sharing regulations); Xilinx, Inc. v. Commissioner, T.C. Dkt. No. 4142-01 (1995, 1996 \& 1997 tax years under both 1968 regulations and 1995 cost sharing regulations).
    56 See Seagate, supra, at 914 (the Service admitting a lack of evidence of arm's length dealings supporting its position); Adaptec, T.C. Dkt. No. 3480-01 (Petition and Answer at $9 \mathbb{}$ (1)(d)(19) - (21));

[^32]:    Xilinx, T.C. Dkt. No. 4142-01 (Petition and Answer at $9 \uparrow 5(\mathrm{a})(37)-(45)$, $915(\mathrm{a})(50)-(54))$.
    57 Large and Mid-Size Business Organization, Industry Directive on Stock Options and Cost Sharing Agreements, dated January 25, 2002, reprinted in 2002 TNT 21-45 (Jan. 30, 2002).
    ${ }^{58}$ Xilinx v. Commissioner, T.C. Dkt. No 4142-01 (Apr. 4, 2002).
    ${ }^{59}$ OECD Guidelines, supra note 32, at § 4.107.
    ${ }^{60}$ Id., at § 8.15 (emphasis added). See also §§ 8.5, 8.13 and 8.14.

[^33]:    ${ }^{61}$ Id., at § 3.67
    62 Treasury News Release, "Remarks by Leslie B. Samuels, Assistant Secretary for Tax Policy, Seventh Annual International Tax Institute, George Washington University (Dec. 16, 1994); See also Statement of Leslie B. Samuels Assistant Secretary (Tax Policy), Department of the Treasury Before The Committee on Foreign Relations, United States Senate (Oct. 27, 1993).
    ${ }^{63}$ OECD Guidelines, supra note 32, at §1.7.
    ${ }_{65}$ Prop. Treas. Reg. § 1.482-7(a)(3), 67 F.R. 48997 (emphasis added)
    ${ }^{65}$ For almost 50 years, mainstream accounting principles have not considered the grant or exercise of employee stock options to constitute a corporate "cost" or expense. See Accounting Research Bulletin No. 43 (1953); Accounting Principles Board Opinion No. 25 (1972); Financial Accounting Standards No. 123 (1995). Recently, however, the Financial Accounting Standards Board in the United States

[^34]:    and the International Accounting Standards Board have begun to reconsider the treatment of employee stock options for financial statement purposes. To date, neither body has acted to require companies to treat the grant or exercise of employee stock options as a corporate expense.
    ${ }^{66}$ See, generally, Report of Prof. William J. Baumol and Prof. Burton G. Malkiel, "Status of Stock Options in Shared-Cost Contracts," (April 8, 2002), Ex. F to SoFTEC's Brief Amicus Curiae filed in Xilinx, T.C. Dkt. No. 4142-01 (April 30, 2002) ("Baumol \& Malkiel Report" attached as Exhibit A). Unlike most other corporate expenses, at issuance of the stock option, the corporation does not pay out any assets of the corporation to the employee. In theory, the employee takes less in cash wages when granted stock options; thus, the stock options granted to an employee save the corporation cash. At exercise of the option, the corporation receives the strike price from the employee. Baumol \& Malkiel Report at 4-5, 12-13.
    ${ }^{67}$ Baumol \& Malkiel Report, supra note 66, at 3-6, 12-15, 25-36; see also, Lynn Rees and David Stott, "The Value-Relevance of Stock-Based Employee Compensation Disclosures," Journal of Applied Business Research Vol. 17, No. 2 105-116 (Spring 2001);
    68
    ${ }^{69}$ Id., at 20-25.

[^35]:    ${ }^{70}$ Id., at 23-25.
    ${ }_{71}$ Id., at 36-45.
    ${ }^{72}$ Treas. Reg. § 1.482-1(c)(1); Cf. Treas. Dept. Release F-1217, supra note 27, at 2.

[^36]:    ${ }^{76}$ Id
    ${ }^{77}$ Treas. Reg. § 1.481-1(b)(1) (emphasis added).

[^37]:    ${ }^{78}$ Safe harbor cost sharing arrangements that include the "cost" of employee stock options in the pool of costs to be shared among controlled affiliates are not uncontrolled transactions and cannot be used by the Service as evidence of arm's length dealing.

[^38]:    ${ }^{79}$ See Prop. Treas. Reg. § 1.482-7(d)(2)(ii).

[^39]:    ${ }^{80}$ See Treas. Reg. § 1.482-7(1).

[^40]:    In the fields of economics and finance, papers accepted for publication in significant journals must first undergo rigorous peer review before being accepted for publication. The peer review process is designed to ensure that the proffered papers do not suffer from defects in theory, logic or statistics. 2 In reviewing the unpublished working paper, we noted what we believed to be problems in certain statistical aspects of the analysis. After contacting the authors and obtaining their data set, we asked Dr. Atanu Saha to assist us by making certain alterations to and re-running the various regression equations in the unpublished working paper. Dr. Saha's analysis is summarized below and is set forth in full in his economic report.

[^41]:    4 Both Professors Black and Scholes and Professor Merton cited a paper we wrote with Richard Quandt on the valuation of convertible securities in their Nobel Prize winning articles. William J. Baumol, Burton G. Malkiel, and Richard E. Quandt, "The Valuation of Convertible Securities," Quorterly Journal of Economics, Vol. 80, February 1966, pp. 48-59.

[^42]:    3 John C. Hall, Introduction to Futures and Options Markets, $3^{\text {rd }}$ Ed., 1999, Prentice-Hall, Chapter ${ }_{6} 17$ "Biases in the Black-Scholes Model", pp. 382-383.

    Friedman, R., 2001. "What Are My Options Worth?" Article on the web site of MyStockOptions.com.

[^43]:    1 Rubinstein, M., 1995. "On the Accounting Valuation of Employee Stock Options." The Jowrnal of Derivatives, pp. 8-24.

[^44]:    - Rubinstein, op. cite, p. 19.

[^45]:    As described below, the IRS exercise date position is not quite this simple, as it is actually based on the amount of the section 83 deduction recorded by the U.S. participant

[^46]:    10 We were curious why the Hillegeist \& Penalva working paper results were inconsistent with all of the other empirical analyses. Upon inspection of their regression specification and statistical techniques, we noted several statistical techniques that were questionable. We asked Dr. Atanu Saha of the Analysis Group to contact Professors Hillegeist and Penalva and to obtain their data set. We then asked Dr. Saha to re-run their particular Hillegeist and Penalva regressions after correcting the shortcomings we perceived in their particular specification of the regression equations and the statistical techniques. After adjustment for these items, the Hillogeist \& Penalva regressions are consistent with the other empirical studies and show that the relationship between estimated option expense and share price is not statistically significant from zero. In other words, the revised Hillegeist \& Penalva regressions show that there is no measurable economic cost to the issuance of the options. The details of the work performed by Dr. Saha under our instruction are set forth in his declaration.

[^47]:    11 For purposes of this example, we will ignore the problems involved in selling an equivalent warrant into the marke, including issues relating to vesting, forfeiture and non-transferability.

[^48]:    1248 C.F.R. $\S 1.101 ; 48$ C.F.R. $\S 31.103$. The FARS governed both commercial and military purchases by the United States. 48 C.F.R. §1.101; 48 C.F.R. §31.103. ${ }^{13}$

    Section 31.205-6 of the FARS governed compensation for personal services, including RDT\&E services, during the years at issue. 48 C.F.R. §31.205-6(a).

[^49]:    $14 \quad 48$ C.F.R. §31.205-6(i).

[^50]:    ${ }^{1}$ All references to "section" are to the Internal Revenue Code of 1986, as amended, unless otherwise noted.
    ${ }^{2}$ H.R. Conf. Rep. No. 841, 99th Cong., 2d Sess. at II-638 (1986) (the "1986 Act Conference Report").
    ${ }^{3}$ Published as Notice 88-123, 1988-2 C.B. 458.
    ${ }^{4}$ Treas. Reg. §1.482-7(a)(1).

[^51]:    ${ }^{5}$ See 1996 U.S. Model Income Tax Treaty Technical Explanation, reprinted in 6 Rhoades \& Langer, U.S. Int'1 Tax'n \& Tax Treaties.

    6 FSA 200003010; FSA 200103024.
    ${ }^{7}$ See Seagate Technology, Inc. v. Commissioner, T.C. Memo. 2000-361 (Nov.
    27, 2000).
    ${ }^{8}$ U.S. Treasury Preliminary Report, "Corporate Inversion Transactions: Tax Policy Implications," May 17, 2002.
    ${ }^{9}$ Statement of Pamela F. Olson, Acting Assistant Secretary for Tax Policy, U.S. Department of the Treasury, Testimony Before the House Committee on Ways and Means, Hearing on Corporate Inversions, June 6, 2002.

[^52]:    ${ }^{10}$ United States Steel Corporation v. Commissioner, 617 F.2d 942 (2d Cir. 1980), rev'g T.C. Memo, 1977-140 (court looked to price charged between unrelated parties as indicative of an arm's length standard); Seagate Technology v. Commissioner, 102 T.C. 149 (1994) (section 482 regulations attempt to identify the "true taxable income" of each entity based on the taxable income that would have resulted had the entities been uncontrolled parties dealing at arm's length); Sundstrand Corp. v. Commissioner, 96 T.C. 226 (1991) (purpose of section 482 is to prevent the artificial shifting of the net incomes of controlled taxpayers by placing controlled taxpayers on a parity with uncontrolled, unrelated taxpayers).

[^53]:    ${ }^{11}$ Citing 1988-2 C.B. at 458, 477.
    ${ }^{12}$ Id.
    ${ }^{13}$ IRS admission in Seagate case - In a December 6, 1999, response to the company's request for admissions, the IRS acknowledged that "Respondent cannot identify a single arm's-length cost sharing agreement, joint venture, or other similar arrangement in which one unrelated company agreed to pay a second unrelated company for any 'costs' incurred with respect to the second company's grant of at-the-money stock options to its employees."

[^54]:    ${ }^{14}$ MOD-1 § 1.091996 U.S. Model Income Tax Treaty: Associated Enterprises (referring to circumstances in which "conditions are made or imposed between the two enterprises in their

[^55]:    commercial or financial relations that differ from those that would be made between independent enterprises").
    ${ }^{15}$ See 1996 U.S. Model Income Tax Treaty Technical Explanation, reprinted in 6 Rhoades \& Langer, U.S. Int ll Tax'n \& Tax Treaties MOD-9.
    ${ }^{16}$ See, e.g., Article 9 of the U.S. tax treaty with Ireland.

[^56]:    ${ }^{1}$ IRS admission in Seagate case -- In a Dec. 6, 1999, response to the company's request for admissions, the IRS acknowledged that "Respondent cannot identify a single arm's-length cost sharing agreement, joint venture or other similar arrangement in which one unrelated company agreed to pay a second unrelated company for any 'costs' incurred with respect to the second company's grant of at-the-money stock options to its employees."
    ${ }^{2}$ MOD-1 $\S 1.091996$ U.S. Model Income Tax Treaty: Associated Enterprises (referring to circumstances in which "conditions are made or imposed between the two enterprises in their commercial or financial relations that differ from those that would be made between independent enterprises").
    ${ }^{3}$ See 1996 U.S. Model Income Tax Treaty Technical Explanation, reprinted in 6 Rhoades \& Langer, U.S. Int'I Tax'n \& Tax Treaties MOD-9.

[^57]:    ${ }^{1}$ Treas. Reg. § 1.482-1(b).

[^58]:    ${ }^{2}$ The Commissioner of Internal Revenue (the "Commissioner") admitted in response to an informal discovery request that he "has not to date identified an arm's length transaction between unrelated parties that [Commissioner] believes supports his position on the cost sharing stock option issue." Petitioner's Motion for Partial Summary Judgment on the $\S 482$ Cost Sharing Stock Option Issue, Seagate Technology, Inc. v. Commissioner, T.C. No. 15086-98 (filed Feb. 7, 2000) (quoting Exhibit A).

[^59]:    ${ }^{3}$ Declaration of T. Scott Newlon, Seagate Technology, Inc. v. Commissioner, T.C. No. 15086-98 (filed August 1, 2001) (page 31 of Exhibit A). Although the expert report stated that third parties must be including the "cost" of stock options implicitly, no factual evidence was provided to support that position. Id. at 28-31.
    ${ }^{4}$ The Tax Reform Act of 1986, Public Law 99-514, 100 Stat. 2085, 2561 et seq., amended section 482 to require that consideration for intangible property transferred in a controlled transaction be commensurate with the income attributable to the intangible. As stated in the preamble to the proposed regulations, "[s]ection 1.482-7 of the 1995 final regulations implements the commensurate with income standard in the context of cost sharing arrangements."
    ${ }^{5}$ Prop. Treas. Reg. § 1.482-7(d)(2)(iii).
    ${ }_{7}^{6}$ See id.
    7 "The arm's length result of a controlled transaction must be determined under the method that, under the facts and circumstances, provides the most reliable measure of an arm's length result." Treas. Reg. § 1.4821(c)(1).
    ${ }^{8}$ The CWI issues arising from the mandatory inclusion of stock options in cost sharing agreements (especially at exercise value) also illustrate why stock options are not included in third party research and development (R\&D) and other similar agreements. In an arm's length transaction, a foreign company presumably would not enter into a R\&D agreement with a U.S. company in which the R\&D costs that the U.S company charged to the agreement were subject to a potential sharp upward revision in future years (due to the "cost" of options subsequently exercised) even though this revision largely would be unrelated to the success or failure of the R\&D venture, which leads to the distinct possibility that costs would be sharply increased even though the venture generated substantially less income than anticipated.

[^60]:    ${ }^{9} 48$ C.F.R. § 31.205-6(i) (2002).
    ${ }^{10} 48$ C.F.R. § 31.205-6(i)(1) (2002) (emphasis added).
    ${ }^{11}$ See also note 8 supra.
    ${ }^{12}$ Treas. Reg. § 1.482-7(d)(2). Costs incurred related to the intangible development area include (i) "operating expenses" as defined in regulation section 1.482-5(d)(3), other than depreciation or amortization expense, and (ii) "the charge for the use of any tangible property made available to the qualified cost sharing arrangement." Id. Operating expenses are defined as all expenses not included in the cost of goods sold except for interest expense, foreign income taxes and domestic income taxes. Treas. Reg. § 1.482-5(d)(3).
    ${ }^{13}$ Under regulation section $1.482-7(\mathrm{~d})(1)$, the intangible development costs to be shared in a qualified cost sharing arrangements generally are defined as operating expenses. See note 12 supra.
    ${ }^{14}$ The only cash expense to the corporation relates to the administration of the stock option plan, which is not the subject of the proposed regulations.
    ${ }^{15}$ While the economic opportunity cost of compensatory stock options may be relevant from a financial accounting perspective, that "cost" is reflected as a charge against income in audited financial statements or disclosed in footnotes to such financial statements (based on the value of those options).

[^61]:    ${ }^{16}$ KPMG is not hereby expressing any opinion as to the proper treatment of compensatory stock options for financial accounting purposes.
    ${ }^{17}$ The IRS's own expert agrees: "[I]n cases where financial accounting conventions lead to inaccurate measures of value, competent business decision makers will not be bound by what is the company's financial accounts. . . Therefore, the economic analysis of related-party transfer prices should not be bound by the financial accounting figures either." Declaration of T. Scott Newlon, Seagate Technology, Inc. v. Commissioner, T.C. No. 15086-98 (filed August 1, 2001) (quoting page 22 of Exhibit A).

