The Benchmark Income Tax Treatment of Employee Stock Options: A Basis for Comparison

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INTRODUCTION

The appropriate treatment of employee stock options, for both accounting and tax purposes, is a matter of much debate and limited consensus. The appropriate accounting treatment—specifically, whether the employer should record an amount on account of employee stock options as an expense for financial accounting purposes—is currently under discussion in a number of countries around the world. The appropriate tax treatment of stock options is also problematic, although for

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different reasons. While the accounting debate focuses on the treatment that is 
appropriate from the employer’s perspective, the tax debate tends to focus primarily 
on how the receipt of stock options should be taxed in the hands of employees and, 
particularly, what favourable tax treatment is justified. The fact that some form of 
favourable tax treatment is necessary or appropriate seems to be taken as a given. 
This paper does not attempt to address whether such treatment is justified. Rather, 
it discusses the appropriate benchmark income tax treatment of employee stock 
options against which favourable tax treatment should be measured.

In most countries, the taxation of options generally (ignoring any special considera-
tion applicable to employee stock options) differs significantly from the theoretically 
correct basis for taxation, under which the tax treatment of an option should follow 
from the bifurcation of the option into its loan element and bet element. The 
expected gain—that is, imputed interest on the option premium computed at a 
riskless rate—should accrue to the option holder and be deductible to the grantor 
over the life of the option. The unexpected gain or loss—the difference between 
the value of the optioned asset and the aggregate of the strike price and the imputed 
interest—should be recognized at the time that the option is exercised or expires.

In Canada, the tax treatment of options held on capital account is enshrined in 
section 49 of the Income Tax Act. There are differences between the treatment of 
stock options granted by a corporation for its own shares and the treatment of other 
options to acquire property. Unlike most other option writers, a corporation does 
not recognize any income at the time it grants options on its own shares (that is, if 
an amount is paid for the option). The option holder is treated as having acquired an 
asset—the option—the cost of which is equal to the amount paid for the option 
(the option premium). When the option is exercised, the option holder does not

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2 Essentially, an option consists of two elements: an embedded loan (or expected return element based on the time value of money) and a bet (or unexpected return element). The option premium—the amount paid for the option—reflects the amount of the loan. The bet or unexpected return reflects the extent to which the actual value of the optioned asset on the strike date exceeds the strike price plus the expected return. See, generally, Reed Shuldiner, “A General Approach to the Taxation of Financial Instruments” (1992) vol. 71, no. 2 Texas Law Review 243-350, at 308-13; and Tim Edgar, The Income Tax Treatment of Financial Instruments: Theory and Practice, Canadian Tax Paper no. 105 (Toronto: Canadian Tax Foundation, 2000), 243-58.

3 RSC 1985, c. 1 (5th Supp.), as amended (herein referred to as “the Act”). Unless otherwise stated, statutory references in this paper are to the Act. Section 49 was introduced as part of the 1972 tax reform. Previously, there was no provision in the Act that governed the treatment of options. See, generally, John A. Zinn, “The Taxation of Capital Gains: Selected Topics,” in Brian G. Hansen, Vern Krishna, and James A. Rendall, eds., Canadian Taxation (Toronto: De Boo, 1981), 363-441, at 382-88.

4 Paragraph 49(1)(b). The grant of most other options is considered to be a disposition of property, the cost of which to the grantor is nil: see subsection 49(1).
recognize any gain or loss, but rather adds the option premium to the strike price to determine the cost of the optioned property acquired. The corporate grantor does not recognize any gain or loss if the option is exercised. From the option holder’s perspective, the entire gain realized from the option (whether expected or unexpected) is therefore generally deferred until the disposition of the underlying property. If the stock option expires unexercised, the option holder recognizes a loss equal to the option premium previously paid and the corporate grantor recognizes a gain equal to the option premium previously paid.

An employee stock option is similar in nature to other stock options (ignoring their tax treatment), although there are a number of important distinctions. The following example highlights many of the features of employee stock options (particularly those used in the high-tech sector).

Example
An employee (A) is hired by a high-tech company (X Co). As an incentive, X Co grants A options to acquire 46,000 shares of X Co at the price of $1 per share, being the fair market value of the shares of X Co on the date A is hired. The options may be exercised at any time over the following 10 years, subject to the following restrictions. A cannot exercise any of the options until the first anniversary after commencing employment with X Co, at which time, if A is still employed by X Co, A has the right to exercise 10,000 of the 46,000 options. In business parlance, 10,000 of the options “vest” after one year. Thereafter, 1,000 further options vest at the end of each subsequent month provided that A is an employee of X Co at that time, so that the options will be fully vested after four years. In the event that A’s employment with X Co is terminated at any time, all unvested options are immediately forfeited and any vested options automatically expire after three months. In effect, A is given three months after the termination of employment to exercise any vested options; otherwise, they expire. The options are non-transferable except in the event of A’s death. If A dies, any vested options may be transferred in accordance with A’s will or under the laws of intestacy, and A’s estate or beneficiaries have one year to exercise any vested but unexpired options. (Any unvested options are forfeited as a consequence of A’s death.) Finally, any shares of X Co acquired by A under the options may be subject to trade restrictions

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5 Paragraph 49(3)(b). The expected gain from stock options (or other options for that matter) is not taxed; therefore, no amount of imputed interest accrues to the option holder or is deducted by the grantor over the life of the stock option.

6 The amount paid for the option (plus the amount paid for the shares under the option) is added to the paid-up capital of the shares: Interpretation Bulletin IT-96R6, “Options Granted by Corporations To Acquire Shares, Bonds, or Debentures and by Trusts To Acquire Trust Units,” October 23, 1996, paragraph 6; and Interpretation Bulletin IT-463R2, “Paid-Up Capital,” September 8, 1995, paragraph 10.

7 Subparagraph (b)(iv) of the definition of “disposition” in subsection 248(1) provides that the expiry of an option is a disposition; therefore, the option holder is considered to have disposed of the option for nil proceeds on its expiry.

8 Subsection 49(2).
under applicable corporate or securities laws and may be subject to certain buy-back rights (at a price computed under a predetermined formula) in the event that A’s employment with X Co is terminated at a time when the shares are not publicly traded.

The above example highlights several key distinctions between employee stock options and publicly traded stock options. First, an employee does not generally pay an option premium for the option; rather, the option is granted as part of the employee’s compensation package. Second, employee stock options are often subject to a vesting period during which they may be forfeited if certain conditions are not met. Third, the term of employee stock options is generally much longer than that of publicly traded stock options, although the term may be shortened in certain circumstances, such as the loss of employment or death. Fourth, vested stock options are generally non-transferable (except perhaps to members of the employee’s family in certain circumstances). Finally, the shares acquired pursuant to such options may be subject to trade restrictions or buyback rights in the event that employment is terminated.

The next section of the paper considers one possible source of guidance that might inform the benchmark income tax treatment of employee stock options: their treatment in accordance with generally accepted accounting principles (GAAP), particularly recent proposals of the International Accounting Standards Board (IASB) and the Canadian Institute of Chartered Accountants (CICA). Both the financial accounting profession and the legal profession (originally through the judiciary) were required to consider the appropriate treatment of employee stock options before the development of the first option pricing models in 1973. Interestingly, the early approaches of the accounting profession and the courts differed significantly. While the accounting profession concluded that an employee stock option granted with no intrinsic value had no cost to the employer, the judiciary generally recognized that such options had value to the employee, although the courts were ill equipped to determine that value. The development of option pricing models has provided a means for valuing stock options, for both accounting and income tax purposes. However, for the past 30 years, the accounting industry and the legislature have generally ignored option pricing models as a valuation tool. Now, the accounting profession proposes that the value of stock options be recognized as an expense when the options are granted (or, more specifically, over their vesting period) using an option pricing model. In the meantime, the legal profession (now through specific statutory provisions) has moved away from the early recognition of employee stock options.

9 In the example, no options vest until the first anniversary after employment commences. This initial period in which no options vest is referred to as a “cliff.” “Graded vesting” refers to the situation in which portions of the options vest at successive time intervals, as is the case in years two through four in the example.

10 The example illustrates the most common vesting restriction: continued employment. Other possible vesting restrictions are performance conditions, such as achieving a specified growth in sales, earnings, or share price.
stock options, deferring any tax liability until the options are exercised (or sold) at the earliest.

**THE ACCOUNTING TREATMENT OF EMPLOYEE STOCK OPTIONS**


Historically, the accounting profession has taken a highly simplistic approach to the valuation of stock options. For options that are not performance-related, the enterprise can claim an expense on the date the option is granted equal to the intrinsic value of the option (the difference between the exercise price under the option and the share price at that time). In other words, the enterprise need not report any expense unless the option is “in the money” at the time of grant.

This approach, introduced by the US Accounting Principles Board in 1972 (and referred to here as “APB 25”), predated the pioneer work on option pricing of Fisher Black and Myron Scholes published in the following year. The Black-Scholes model recognizes that the value of an option is generally dependent on five factors:

1. The value of the underlying asset.
2. The strike price of the option.
3. The time remaining until the option expires.
4. The risk-free interest rate.
5. The volatility of the underlying asset.

If the option is performance-related—that is, the number of options that vest is contingent on certain performance thresholds being met—the expense (the intrinsic value of the option) is measured and recognized at the appropriate “measurement date,” which is the date when both the number of options that the employee is entitled to receive and the exercise price are fixed.

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The Black-Scholes model was originally developed for “European options”—options that are exercisable only on the strike date—as opposed to American options—options exercisable at any time on or before the strike date. Employee stock options are generally American options. An American option gives its holder all of the rights of a European option plus the additional right to exercise early. It follows that an American option will have a value at least equal to that of a European option. Whether or not an American option is worth more than a European option depends on the circumstances. According to the literature on this point, the value of an American option should equal that of a European option where the underlying security does not pay dividends, because it is never optimal to exercise an American option early in these circumstances. For a discussion of the rationale, see Smithson, supra, at 215. Thus, the Black-Scholes model can be used to value American options on stock that pays no dividends during the exercise period of the option. If the underlying stock does pay dividends, early exercise may be optimal if the dividend is sufficiently large. Early exercise will occur, if at all, immediately before the stock goes ex-dividend. A model for the valuation of American options was developed.
1. the option exercise price,
2. the current value of the underlying security,
3. the riskless rate of interest,
4. the time to expiration, and
5. the volatility of the stock price.

In essence, the Black-Scholes model recognizes three determinants in valuing a stock option: the intrinsic value of the option (the first two factors); the time value of money (the next two factors); and the share’s volatility. Even ignoring a share’s volatility, it is readily apparent that the approach of APB 25 significantly undervalues employee stock options because it ignores the time value of money. Consider the following simple example. An employee (A) receives vested options to acquire 10,000 shares of X Co at the price of $1 per share, equal to the value of each share on the grant date. The options are exercisable at any time over the next 10 years. Since the exercise price is equal to the value of the shares on the grant date, the employer does not recognize any expense on account of the options under APB 25. However, even if one ignores the volatility of the shares, the options must have some current value because of the time value of money. This value is commonly referred to as the minimum value of the stock options. If one assumes that the riskless rate of return is 5 percent and there is no volatility in stock price, the stock options have a minimum value on the grant date of $3,860.87. This figure simply


Other option pricing models have been developed since 1973, generally seeking to remove one or more of the assumptions upon which the Black-Scholes model is based and which influence its general utility.

A good proxy for the riskless rate of interest is the interest rate on government debt having a term similar to the term of the option. Ten-year government of Canada benchmark bonds (assuming that options granted currently have a 10-year option period, or more specifically, as discussed below, a 10-year expected life) currently bear a yield to maturity of approximately 5 percent. Therefore, a riskless rate of 5 percent is used for illustration purposes throughout this paper.

Expected volatility is a necessary factor that can only increase the value of an option. The more volatile a stock, the greater the value of the option because the greater the potential value of the stock at the end of the option period. While a highly volatile stock has a high probability of declining in value, the value of the option can never be less than zero because the option holder will simply choose not to exercise the option. Since the value of the option on its expiry date is the value of the stock on that date less the exercise price of the option, the greater the stock price's volatility, the more likely that the stock’s value on the exercise date will exceed the exercise price by a substantial amount, if it exceeds that price at all.

Determined by the formula 10,000 – [10,000 × (1/1.05^{10})]. For the sake of simplicity, it is assumed that the shares do not pay dividends and that A derives no benefit from the fact that
reflects the present value of deferring payment of $10,000 (to acquire something worth $10,000) for 10 years (or, looked at another way, it represents the carrying cost to the corporation of setting aside $10,000 worth of shares for 10 years). If the volatility of the stock is factored in, the value of the options on the grant date can only increase.

As this example illustrates, if stock options were valued using even their minimum value (that is, ignoring volatility) rather than their intrinsic value, they would have a significant impact on a corporation’s bottom line. Assuming that the options are exercised, they will definitely have a significant impact on the corporation’s earnings per share. Financial accounting standards—which are designed to provide readers of financial statements (such as existing or potential shareholders and creditors) with an accurate (and conservative) account of a corporation’s profits—ought to recognize this impact. However, for the past 30 years, corporations have not been required to account for anything other than the intrinsic value of stock options in their income statements.

The Tech Boom and the [Lack of] Response of the Accounting Profession

In the 1990s, particularly with the rapid growth of the high-tech sector, stock-based compensation became an increasingly important component of employee compensation for all employees, not just senior executives. Employees of startup companies often accept lower salaries in exchange for stock options as part of their overall compensation package. Stock options are, in many cases, the key form of remuneration (or anticipated remuneration) used to attract employees to startups. In 1997, it was suggested that “Silicon Valley wouldn’t be what it is today without stock options—or, arguably, would the U.S. stock market be quite as supercharged or the economy be buzzing along as smoothly.” While the US stock market is no longer “supercharged” and the economy is not exactly “buzzing along,” stock options remain an important form of compensation in new economy businesses and a significant part of executive compensation in all business sectors.

In 1993, the US Financial Accounting Standards Board (FASB) issued an exposure draft in which it proposed that an enterprise should recognize an amount of compensation expense on account of employee stock options determined using a modified Black-Scholes model. The FASB proposal was heavily criticized, and in December 1994, the FASB voted to require the disclosure of option values (that is, in the shareholders may voting. The formula also ignores the probability that A will leave X Co’s employ before the expiry date of the options (thus reducing the term of the options to less than 10 years). In effect, there is no justification for A’s exercising the options before expiry. For an explanation of the formula used, see Terry, supra note 13, at 333-34.

notes to financial statements) but to make the recognition of such expense in corporate income statements voluntary. When the FASB issued its *Statement of Financial Accounting Standards* no. 123, “Accounting for Stock-Based Compensation” in 1995—the standard currently in effect—it acknowledged that this decision was primarily political.19

Thus, although SFAS no. 123 mandates disclosure of the value of stock options, this disclosure can be buried in the notes to the corporation’s financial statements, so that the impact on a corporation’s profitability is not readily apparent to readers.

**The Tech Bust, Market Meltdown, Enron, and WorldCom: The Accounting Profession Finally Responds**

In an effort to create international consensus in the accounting treatment of employee stock options (and other stock-based compensation), the IASB released an exposure draft (“the draft IFRS”) on November 7, 2002.20 One month later, the Accounting Standards Board of the CICA issued an exposure draft proposing amendments to section 3870 of the *CICA Handbook* that would make the reporting of stock-based compensation mandatory in all circumstances.21 Section 3870 is based on SFAS no. 123 and, similar to the position in the United States, requires only that Canadian enterprises disclose in notes to the financial statements, but not in the statements themselves, the impact of stock options on net income (and, if also presented in the financial statements, on earnings per share). If adopted, the changes

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19 Financial Accounting Standards Board, *Statement of Financial Accounting Standards* no. 123, “Accounting for Stock-Based Compensation,” October 1995 (herein referred to as “SFAS no. 123”), paragraphs 61 and 62, which state in part, “The Board continues to believe that financial statements would be more relevant and representationally faithful if the estimated fair value of employee stock options was included in determining an entity’s net income, just as all other forms of compensation are included. To do so would be consistent with accounting for the cost of all other goods and services received as consideration for equity instruments. . . . [T]he Board . . . continues to believe that disclosure is not an adequate substitute for recognition of assets, liabilities, equity, revenues and expenses in financial statements. . . . The Board chose a disclosure-based solution for stock-based employee compensation to bring closure to the divisive debate on this issue—not because it believes that solution is the best way to improve financial accounting and reporting.”


21 Canadian Institute of Chartered Accountants, *CICA Handbook* (Toronto: CICA) (looseleaf). Section 3870, which governs stock-based compensation and other stock-based payments, was first released in December 2001. Stock options are covered in paragraphs 3870.24 through 3870.37 and 3870.44 through 3870.52. Section 3870 is accompanied by two appendixes that provide guidelines on applying the recommendations (appendix A) and examples that illustrate their application (appendix B).
would apply to financial periods beginning on or after January 1, 2004. In a news release issued on March 12, 2003, the FASB announced its plans to review the treatment of stock-based compensation “with a view to issuing an Exposure Draft later this year that could become effective in 2004.”

It has thus taken the accounting profession 30 years to reach the point where it appears ready to adopt rules that mandate the reporting of employee stock options as an expense whose value is based on an appropriate option pricing model. In the context of the appropriate tax treatment of employee stock options, the draft IFRS and section 3870 of the CICA Handbook warrant further examination.

The Proposed Accounting Treatment of Employee Stock Options

The draft IFRS and section 3870 share many similarities. Both require that an enterprise determine the “fair value” of employee stock options on the date on which the options are granted and amortize that amount as an expense over the vesting period of the options; if the options vest immediately, the expense is recognized on the grant date. Both the IASB and the CICA require that the fair value be estimated using an option pricing model (such as the Black-Scholes model) that takes into account the following factors:

1. the exercise price,
2. the current market price of the share,
3. the term of the option,23
4. the risk-free interest rate for the life of the option,
5. expected volatility of the share price, and
6. expected dividends.24

In addition to these six factors, both the IASB and the CICA recognize that employee stock options include features not present in traded options. For example, both organizations require that the expected life of an option rather than its term be used in determining the fair value of the options. The expected life is used because an employee is generally unable to transfer vested options. The fact that

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22 Financial Accounting Standards Board, “FASB Adds Projects to Its Agenda on Employee Stock Options and Pensions,” News Release, March 12, 2003 (available online at the FASB Web site: http://www.fasb.org). According to FASB Chairman Robert Herz, quoted in the news release, “[i]n the wake of the market meltdown and corporate reporting scandals, the FASB has received numerous requests from individual and institutional investors, financial analysts and many others urging the Board to mandate the expensing of the compensation cost relating to employee stock options.”

23 As discussed below, in practice, the “expected life” of an option rather than its term is used for non-transferable options: CICA Handbook, at paragraph 3870.33; and the draft IFRS, at paragraph 21 (see also Basis for Conclusions, supra note 20, at paragraphs BC152 through BC165).

24 The rationale for this factor in an option pricing model for American options is explained in note 13, supra.
Employee stock options are non-transferable and cannot be pledged as security for a loan generally means that an employee has no way of diversifying the risk associated with the options. Thus, employees cannot make the same exercise decision as an unconstrained option holder, for whom exercise at expiration is generally optimal. Empirical evidence of employee stock option exercises indicates that early exercise of options is pervasive, although the exact time of exercise varies significantly from firm to firm and from employee to employee. As a consequence of the difficulties in estimating the expected life of stock options for employees (whether individually or on average for the particular corporation), section 3870 notes that “in the absence of reliable evidence on a stock option’s expected life, its contractual life is to be used.”

There are, however, important differences in the approach of the IASB and the CICA. In particular, the existence of vesting conditions has an impact on the manner in which the fair value of options is determined on the grant date and the manner in which forfeited options are accounted for (if at all). These differences stem from differing theories underlying the reporting requirement for employee stock options. According to the CICA,

> [t]he objective of the measurement process is to estimate the fair value, based on the stock price at the grant date, of stock options . . . to which employees become entitled when they have rendered the requisite service and satisfied any other conditions necessary to earn the right to benefit from the instruments.

Thus, the CICA takes an expense-based approach to the reporting of stock options. The objective of section 3870 is to report the cost to the employer of the benefit provided to employees. The IASB, on the other hand, takes the opposite approach, focusing on the benefit to the employer of the services provided:

> In an equity-settled share-based payment transaction, the accounting objective is to recognise the goods or services received as consideration for the entity’s equity instruments, measured at the fair value of those goods or services when received. For transactions in which the entity receives employee services, it is often difficult to

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26 Many factors influence an employee’s decision to exercise a stock option. Huddart and Lang, supra note 25, identify strong associations between the following factors and exercise: recent stock price movements, the spread between market price and exercise price, proximity to vesting dates, time to maturity, volatility, and the employee’s level within the company. See also Chip Heath, Steven Huddart, and Mark Lang, “Psychological Factors and the Stock Option Exercise” (1999) vol. 114, no. 2 *Quarterly Journal of Economics* 601-27.

27 *CICA Handbook*, at paragraph 3870.33, note 7.

28 Ibid., at paragraph 3870.30.
measure directly the fair value of the services received. In this case, the [IASB] concluded that the fair value of the equity instruments granted should be used as a surrogate measure of the fair value of the services received.29

Under section 3870, the risk of forfeiture (from failing to satisfy the vesting conditions) is not taken into account in determining an option’s value because the total amount of compensation recognized by the enterprise is based only on the options that eventually vest. Although the value of the option is not discounted, an enterprise may, in determining the expense to be recognized over the vesting period, estimate the number of options that are expected to vest and, at the end of the vesting period, make any necessary adjustments to reflect the compensation cost for the number of options that actually vest.30 The draft IFRS, on the other hand, requires that vesting restrictions be a factor incorporated into the option pricing model. This distinction reflects the differing objectives of the CICA and the IASB for the financial accounting of employee stock options: the rationale underlying section 3870 is to determine the expense associated with the options (and therefore only vested options are taken into account), whereas the rationale underlying the draft IFRS is to determine the value of the employment services provided to the enterprise (which value is provided whether or not the options vest). As is discussed further below, this distinction is irrelevant in the proposed benchmark tax treatment under which the employment expense is not recognized or computed until the vesting date (at the earliest).

Similarly, the draft IFRS and section 3870 differ in the manner in which forfeited options are dealt with. Under the IASB’s approach, the objective of which is to measure the value of goods or services received, any amount recognized for received services is not reversed in the event that the options are forfeited. Under the CICA’s approach, the objective of which is to measure the value of the compensation provided to employees, any amounts recognized on account of employee services received during the vesting period (that is, expenses deducted on account of these services) will be subsequently reversed if the stock options are forfeited. Again, this difference does not arise under the proposed benchmark tax treatment.

One other important difference between the draft IFRS and section 3870 concerns the determination of the fair value of options granted by private corporations. The IASB recognizes that two of the factors in an option pricing model, current price (or value) of the underlying shares and expected volatility, are particularly difficult to measure for private corporations. Nevertheless, it concluded that an option pricing

29 Basis for Conclusions, supra note 20, at paragraph BC191.

30 Section 3870 of the CICA Handbook also permits the enterprise to revise its estimate of the number of options that will ultimately vest during the vesting period and make any consequential adjustments at that time (and at the end of the vesting period based on the number that actually vested). See CICA Handbook, at paragraph 3870.47 and appendix B, paragraphs B11 through B20 for examples.
model employing these factors must be used by all entities.\textsuperscript{31} The CICA, on the other hand, permits an enterprise whose shares are not publicly traded and which has not filed a prospectus for a proposed share issuance to exclude volatility in determining an option’s value. In effect, the CICA permits private corporations to report only the minimum value of employee stock options.

The CICA’s concession to private corporations is perhaps understandable for financial accounting purposes, where the disclosure is intended for those who will rely on financial statements of the corporation (that is, existing and prospective shareholders and creditors). Private corporations generally have relatively few shareholders, who should be aware of employee stock option plans and are better positioned (at least in comparison with shareholders of a public corporation) to assess the impact of those options on corporate profits and share value. Creditors or potential creditors of the corporation are, at best, ambivalent about a corporation’s use of stock options; in fact, they would prefer that the corporation compensate its employees with stock or stock options because such compensation does not reduce the assets of the corporation available to creditors in the event of default. However, as Johnson indicates, creditors should be concerned about the accounting treatment of options (particularly the current “no-cost” treatment) because the profits of the corporation—which reflect the corporation’s current and future ability to carry its debt—are otherwise overstated.\textsuperscript{32}

For tax purposes, it would be inappropriate to ignore the impact of volatility for private corporations. For these corporations, volatility can have a significant impact on an option’s value—much more significant than the time value of money. There are two possible approaches that can be used in order to account for volatility for tax purposes. First, the corporation (upon which the administrative burden of valuing employee stock options for tax purposes would be placed, as discussed below) could be required to estimate the volatility using factors such as those suggested by the IASB.\textsuperscript{33} Alternatively, the recognition and determination of the employment

\textsuperscript{31} Basis for Conclusions, supra note 20, at paragraphs BC137 through BC143. As noted previously, the Black-Scholes option pricing model was developed for publicly traded European options. Obviously, future volatility of the underlying stock can only be estimated. The Black-Scholes model (and other option pricing models) uses past performance of stock as a basis for determining future volatility. Trading history is simply not available for shares of private corporations (although there may be some history of share issuances at different times). See infra note 33 for the IASB’s proposals for determining future volatility in these circumstances.


\textsuperscript{33} For private corporations, the Basis for Conclusions, supra note 20, at paragraph BC139, states, “An unlisted entity that regularly issues options or shares to employees (or other parties) might have an internal market for its shares. The volatility of the internal market share prices provides a basis for estimating expected volatility. Alternatively, an entity could use the historical or implied volatility of similar entities that are listed, and for which share price or option price information is available, as the basis for an estimate of expected volatility. This would be appropriate if the entity has estimated the value of its shares based on the share prices of these similar listed entities. If
benefit could be deferred until the options are exercised, at which point volatility is an irrelevant consideration. These alternatives are considered below in the context of the benchmark tax treatment.

**BENCHMARK TAX TREATMENT OF EMPLOYEE STOCK OPTIONS**

An Employee Benefit Like Any Other Income from Employment

Both the appropriate accounting treatment and the appropriate income tax treatment of employee stock options (for both the employer and the employee) involve two primary considerations:

1. When should the transaction be recognized?
2. What value is placed on the transaction?

While the appropriate accounting treatment is based on GAAP (such as the matching principle), the tax treatment is governed by legal principles and the general statutory rules governing the deduction of business expenses and the recognition of employment income.

For income tax purposes (as for accounting purposes), the value of an employee stock option is determined to a large extent by the time at which the option should be recognized. The timing issue is particularly important for employees in countries, such as Canada, whose tax systems distinguish between ordinary income (including income from employment) and capital gains. Apart from the fact that capital gains are generally recognized on a realization basis, they are also subject to a lower rate of tax than ordinary income. Thus, the answers to the above questions affect not only the time at which income should be recognized in the hands of the entity has instead used another methodology to value its shares, the entity could derive an estimate of expected volatility consistent with that methodology. For example, the entity might value its shares on the basis of net asset values or earnings, in which case it could use the expected volatility of those net asset values or earnings as a basis for estimating expected share price volatility.” The IASB acknowledges that these approaches are subjective and that corporations will in practice underestimate expected volatility, owing to the caution exercised by corporations in making the estimate. In any event, the use of some amount for expected volatility is likely to produce a more reliable measure of the fair value of options than that obtained if volatility is completely ignored.

For newly listed entities, the IASB (ibid., at paragraph BC142) refers to commentary provided in SFAS no. 123 (at paragraph 285b): “For example, an entity that has been publicly traded for only one year that grants options with an average expected life of five years might consider the pattern and level of historical volatility of more mature entities in the same industry for the first six years the stock of those entities were publicly traded.” CICA Handbook, at section 3870, appendix A, paragraph A5, provides similar guidance for enterprises in Canada whose common stock has only recently become publicly traded.

34 If the shares are not publicly listed, there will remain some difficulty in valuing the shares at that time.
employee, but also the effective tax rate on the gain (or loss) ultimately derived from the stock option (or the shares acquired on their exercise). In essence, the earlier that the value of the option is recognized, the earlier the employee’s tax treatment moves from income to capital account.

Given that the timing of recognition of employee stock options largely dictates their value, the following discussion concentrates on this factor. There are only three points in time that are worth considering in the benchmark tax treatment of employee stock options: the time the option is granted; the time the option vests (if it is different from the time of grant); and the time the option is exercised. Delaying the taxable event until the underlying securities are sold—which is done in certain circumstances in both Canada and the United States—cannot be justified on any normative grounds. Such treatment can be justified only as a tax expenditure (and should be evaluated as such).

Conceptually, employees should be subject to tax on stock options at the same time and in the same manner as applies to any other income from employment. Similarly, employers should report a deduction on account of stock options granted in the same manner as any other compensation expense. Employee stock options are a form of non-cash compensation; they should be treated for tax purposes in the same manner as a payment of salary by the employer to the employee immediately followed by the acquisition by the employee of stock options from the employer. Thus, the employer would recognize a deduction and the employee would recognize an income inclusion equal to the amount of notional salary that the option represents (that is, the value of the stock option). The primary issue is when this deduction and inclusion should be recognized.

It is well established that business expenses (assuming that they are current expenses) are deductible when they are incurred—that is, when there is a legal and unconditional, though not necessarily immediate, obligation to pay a determined amount. Consequently, no deduction is permitted for an expense that is a contingent liability. The vesting restrictions imposed on stock options are conditions precedent that must be satisfied before the employer is obliged to honour the option. In the event that the conditions are not satisfied—for example, employment is terminated before vesting—the options are forfeited without compensation. In effect, an unvested stock option is no different from an employer’s promise to pay a bonus to the employee in the future with payment subject to forfeiture if certain conditions are not met. Consider, for example, an employer who has promised to pay an employee $20,000 at a future date—say, in two years’ time—provided that the employee is still employed at that time. For financial accounting purposes, the

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35 The meaning of “incurred” is taken from J.L. Gitay Ltée v. MNR, 71 DTC 5423; [1971] CTC 686 (FCTD); aff’d. 73 DTC 5373; [1973] CTC 506 (FCA); aff’d. 75 DTC 5094; [1975] CTC 97 (SCC). Paragraph 18(1)(a) denies the deduction of an expense “except to the extent that it was made or incurred” for the purpose of earning income from business.

36 Paragraph 18(1)(e).
matching principle requires the employer to amortize the expense over the two-year period, perhaps discounting the amount claimed as an expense in the first year to account for the likelihood that the condition is not met. If the condition is met and the $20,000 is paid (or becomes legally payable), the employer will recognize the balance of $20,000 in the second fiscal period. In the event that the employee leaves in the second year, the employer will add back in that year any amount claimed on account of the promised payment in the previous year. For tax purposes, however, the employer cannot claim any expense until it has been incurred, when the condition precedent has been satisfied and the legal obligation to pay becomes unconditional—that is, at the end of the two-year period. Similarly, an employer could not claim any expense on account of employee stock options before the options vested.

Employees, the recipients of stock options, are taxed on a cash basis. Sections 5 and 6 of the Act, applicable to monetary remuneration and various benefits, respectively, stipulate that an amount is included in income if it has been “received” by the employee in the year. Thus, if there were vesting restrictions on an employee stock option, the benefit would not be taxed before the option vested (as opposed to when it was granted) because the employee had not “received” a benefit until that time. Consider the promise of the $20,000 bonus. While the promise might have some value to the employee at the time it was made, the employee would not be taxed on any part of the $20,000 until it was actually received. Similarly, the grant of unvested stock options might have some value to the employee at the time the options were granted; however, no benefit would be received by the employee before the options vested.

Whether or not the recognition of an expense by the employer and an income inclusion by the employee should be delayed beyond the vesting date depends on whether the value of the employee stock options can be determined with sufficient certainty at that time. If the value cannot reasonably be determined on the vesting date, recognition should be delayed until the value can be determined (that is, when the options are exercised or sold). The general failure of income tax legislation to recognize employee stock options until they are exercised or sold (at the earliest) may be explained by the fact that such legislation predates the development of option pricing models. However, the absence of option pricing models did not stop the judiciary from recognizing that employers gave employees something of value at the time that options were granted, even if the value was difficult to quantify.

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37 This treatment corresponds with the treatment of employee stock options in CICA Handbook section 3870.

38 Assuming that the employer is economically sound and there is no risk of defaulting on the payment, the value of the promise is the present value of $20,000, discounted by the probability that the employee is not employed at the future date. Assuming a riskless rate of interest of 5 percent and a 25 percent probability that the employee is not employed at the end of the two-year period, the promise may be considered to have a present value of $13,605.44.
Judicial Reasoning in a Legislative Vacuum

In Canada, the first case that considered the appropriate treatment of employee stock options arose in 1955. No. 247 v. MNR\textsuperscript{39} concerned an employee who was granted the option to acquire 45,000 shares of his employer pursuant to an agreement dated May 19, 1951. Under the terms of the agreement, the employee could exercise up to 15,000 options between May 15, 1951 and May 15, 1952 (at $5.00 per share); up to 15,000 options between May 15, 1952 and May 15, 1953 (at $4.00 per share); and up to 15,000 options between May 15, 1953 and May 15, 1954 (at $3.50 per share). The agreement further provided that the options terminated in the event that the taxpayer’s employment ceased. In modern parlance, of the 45,000 options granted, 15,000 vested immediately and had a one-year term; 15,000 vested in one year and had a two-year term (from the grant date); and 15,000 vested in two years and had a three-year term. The taxpayer exercised 15,000 options on May 2, 1952 (at $5.00 per share) and a further 15,000 options on June 11, 1952 (at $4.00 per share). The minister reassessed the taxpayer and added to the taxpayer’s income in 1951 as an employee benefit an amount per share equal to the difference between the value of each share on May 19, 1951 (the date of the option agreement) and the strike price paid under the option. Mr. Fordham (for the Tax Appeal Board) dismissed the taxpayer’s appeal. Interestingly, the grounds of the appeal were limited exclusively to factors affecting the value of the options in 1951. The taxpayer did not argue that the benefit should have been taxed until 1952 (when the first 15,000 options were exercised and the second 15,000 options vested and were exercised). Although Mr. Fordham was troubled by the fact that the options were acquired in one year and exercised in another, he concluded that “an examination of the authorities indicates that once such an option has been exercised, the advantage thereby gained is deemed to relate back to the time of receipt of the document granting the option.”\textsuperscript{40} Since 1953, employee stock options have been the subject of specific statutory provisions in the Act under which the earliest time that an employee benefit is recognized is the exercise date under the option. In no case is the employer entitled to any deduction on account of the grant of employee stock options.\textsuperscript{41}

The decision in No. 247 v. MNR may be contrasted with the 1990 decision of the Federal Court of Appeal in Robertson v. The Queen.\textsuperscript{42} The stock options at issue in Robertson were not governed by the legislative employee stock option scheme because the options were not for shares of a corporate employer. Rather, the employee was granted options to purchase shares of a publicly traded company

\textsuperscript{39} 55 DTC 192 (TAB).

\textsuperscript{40} Ibid., at 194. Unfortunately, none of the authorities cited by Mr. Fordham in reaching this conclusion dealt with employee stock options. Furthermore, the result obviously poses administrative difficulties where the options are exercised beyond the assessment limitation period for the year in which the options are granted.

\textsuperscript{41} Paragraph 7(3)(b).

\textsuperscript{42} 90 DTC 6070 (FCA).
owned by his employer, an individual who also happened to be the president and a shareholder of the company. The strike price under the option was approximately equal to the market value of the shares when the options were granted. The options were subject to graded vesting over a five-year period (with the main condition being the taxpayer’s continued employment with the employer). The taxpayer was reassessed for the year in which he exercised the options (six years after they were granted) on an employee benefit equal to the difference between the value of the shares at the time of exercise and the strike price under the option (that is, consistent with taxation of stock options granted by a corporate employer). The taxpayer did not deny that he had received a benefit from employment; rather, he claimed that the benefit arose either in the year in which the options were granted or over the following five years as his right to exercise the options accrued. The Federal Court of Appeal dismissed the taxpayer’s appeal. According to Marceau JA, the stock options granted to the employee gave rise to two economic benefits:

It can hardly be contested, it seems to me, that a first benefit arises upon the employer binding himself, over a period of time, to sell shares at a fixed price, regardless of the appreciation in the market value of such shares, and a second benefit arises if and when the employee makes use of the rights flowing from the first one and exercises the option. The fact is however that while the second benefit can be measured by the discrepancy between the cost of exercising the option and the market value of the shares at the time of the acquisition, the first benefit, although a real one, eludes independent quantification.

Nothing flows from the employer on the granting of the option: while the employer retains the shares, votes them, collects dividends for his own account and may dispose of them, the employee only acquires a possibility to eventually obtain a proprietary interest in those shares and realize a profit therefrom. In my view, individual taxation on employment-source income is based on the flow of money or money’s worth from the employer to the employee. Only the second benefit, the quantifiable one, falls within the scope of paragraph 6(1)(a) of the Act.43

With respect, Marceau JA’s conclusion that “nothing flows” from the grant of the option is not sustainable, although there is some truth in his suggestion that the value of the option at the time of grant “eludes independent quantification.” Certainly the deferral of recognition until stock options are exercised is administratively simpler. However, one would have thought that 27 years after option pricing models were introduced, the court would at least have given consideration to their application.

In the United Kingdom, in the leading case of Abbott v. Philbin44 decided in 1961, the House of Lords concluded that an employee should have been taxed on the value of employee stock options when they were granted; accordingly, the Inland

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43 Ibid., at 6073-74.
Revenue’s assessment of the employee in the year the options were exercised was invalid.\textsuperscript{45} This case concerned a stock option plan provided to senior executives of a publicly traded company. These employees could acquire, at nominal cost, an option to purchase a specified number of shares of the employer at a price equal to the trading price of the shares on the date the options were granted. The options vested immediately, were non-transferable, and were exercisable at any time within 10 years, although they expired in the event of death or retirement of the employee. According to the majority of the law lords, the employee received something of value—that is, something that could be turned to pecuniary account\textsuperscript{46}—at the time the options were granted and accordingly was subject to tax at that time.\textsuperscript{47}

In the United States, early judicial decisions debated whether stock options should be considered compensatory or whether they were awarded to employees in order to give them a “proprietary interest” in the employer corporation and were therefore not compensatory.\textsuperscript{48} The United States Supreme Court finally settled this threshold issue in 1956 in \textit{Commissioner v. LoBue},\textsuperscript{49} where the court dismissed the “proprietary interest” argument. The court relied on the broad wording of the former version of section 61(a) of the Internal Revenue Code,\textsuperscript{50} which included in gross income “gains, profits, and income derived from... compensation for personal service... of whatever kind and in whatever form paid.” Only those gains specifically exempted, such as gifts, were not part of gross income, and the stock options granted to LoBue could not be considered gifts. As to the timing and value

\textsuperscript{45} The Inland Revenue assessed the employee on the amount of profit that the employee would have realized if the shares acquired had been immediately sold (that is, the amount by which the value of the shares on the date of exercise exceeded the strike price under the option plus the cost of the option).

\textsuperscript{46} The test governing the taxation of employee benefits, according to the House of Lords in \textit{Tennant v. Smith}, [1892] AC 150.

\textsuperscript{47} Two of the five law lords dissented, holding that the option was purely a personal right giving the employee an expectation of receiving a benefit, but that no taxable benefit was realized until the options were exercised or (if the options were transferable) transferred. According to Viscount Simonds, who was in the majority (supra note 44, at 367) “[t]here could not be one perquisite at the date of the grant and a second perquisite when the shares were taken up.” The subsequent exercise of the option may have given rise to an advantage, but, according to Lord Radcliffe (ibid., at 379), “[t]he advantage which arose by the exercise of the option... was not a perquisite or profit from the office during the year of assessment: it was an advantage which accrued to the appellant as the holder of a legal right which he had obtained in an earlier year, and which he exercised as option holder against the company.” The reasoning of the majority of the law lords is preferable to the “two benefits” approach of Marceau JA in \textit{Robertson}, supra note 42, at 6073–74. Once an option vests, the employee is in the same position as any other option holder; and, assuming that the value of the employee benefit is recognized when the option vests, the employee should be treated for tax purposes in any other option holder following the date of vesting.

\textsuperscript{48} This distinction was first raised by the Tax Court in \textit{Delbert B. Geeseman}, 38 BTA 258 (1938).

\textsuperscript{49} 351 US 243 (1956).

\textsuperscript{50} Section 22 of the Internal Revenue Code of 1939, as amended (for the purposes of this case).
of the benefit, Black J adopted the Treasury practice adopted in 1923, under which taxation of employee stock options was deferred until the options were exercised, at which time the employee was taxed on the difference between the value of the stock received and the strike price under the option. According to Black J, there was “no reason for departing from the Treasury practice.”51

Following LoBue, courts generally concluded that the benefit from an employee stock option (other than options governed by specific legislative provisions) was subject to tax at the time the option was exercised and the amount of the benefit was the difference between the fair market value of the stock at that time and the exercise price. However, a few taxpayers successfully argued that the benefit arose at the time the option was granted and was equal to the value of the option at that time less the cost (if any) of the option to the employee.52 Since 1959, Treasury regulations or legislative provisions in the Code have governed all employee stock options, although the Code has contained preferential tax treatment of certain employee stock options since 1950. For employee stock options that do not benefit from preferential treatment (referred to as “non-statutory options”), the Code requires the employee to recognize an employee benefit on the grant date only if

51 Supra note 49, at 249. In his judgment concurring in part and dissenting in part, Harlan J concluded (ibid., at 250-51) that the taxable event was the grant of the option: “When the respondent received an unconditional option to buy stock at less than the market price, he received an asset of substantial and immediately realizable value, at least equal to the then-existing spread between the option price and the market price. It was at that time that the corporation conferred a benefit upon him. At the exercise of the option, the corporation ‘gave’ the respondent nothing; it simply satisfied a previously-created legal obligation. . . . The option should be taxable as income when given, and any subsequent gain through appreciation of the stock, whether realized by sale of the option, if transferable, or by sale of the stock acquired by its exercise, is attributable to the sale of a capital asset and, if the other requirements are satisfied, should be taxed as a capital gain. Any other result makes the division of the total gains between ordinary income (compensation) and capital gain (sale of an asset) dependent solely upon the fortuitous circumstance of when the employee exercises his option [footnotes omitted].” With respect to the final remark, Harlan J gave the example of two employees, both of whom are given unconditional options to buy stock at $5, the current fair market value. The first employee exercises the option immediately and sells the shares one year later for $15. The second employee holds the option for one year, exercises it when the shares are worth $15, and sells the shares immediately. The $10 gain realized by the first employee would be considered a capital gain, whereas, on the basis of the majority judgment, the $10 realized by the second employee would be ordinary income because it was compensation for services.

52 See, for example, McNamara v. Commissioner of Internal Revenue, 210 F. 2d 505 (7th Cir. 1954); and Commissioner of Internal Revenue v. Stone’s Estate, 210 F. 2d 33 (3d Cir. 1954). In both cases, there were no vesting restrictions on the options granted and the options were freely assignable. In McNamara, the option granted was in the money, and the option agreement specifically provided that the option was granted as additional compensation for the current year. In Stone’s Estate, the option granted was out of the money, although the taxpayer paid $1,000 for it and reported $5,000 as additional income in the year the option was granted. That case considered the tax treatment of an amount received on an assignment of some of the options. The court held that the options were additional compensation in the year they were acquired, and their subsequent assignment was on capital account.
the benchmark income tax treatment of employee stock options

While this condition will rarely be met, in the event that it is met, the employee is deemed to have received compensation income at that time equal to the difference between such fair market value and the amount, if any, paid for the option. If the option does not have a readily ascertainable fair market value at the time of grant, taxation is deferred until the employee receives an unconditional right to the stock (usually at the time of exercise), at which time the employee is deemed to have received compensation income equal to the difference between the amount paid for the stock and its fair market value.

In Australia, the leading case on the tax treatment of employee stock options is the decision of the Supreme Court of New South Wales in *Donaldson v. Commr. of Taxation*. *Donaldson* was decided in the year following the publication of the Black-Scholes option pricing model, although it is obvious from the decision that the model was not presented in evidence to the court. The case concerned 20,000 options granted to an employee of a publicly traded company pursuant to an agreement dated January 15, 1971. Under the terms of the agreement, 10,000 options could be exercised between January 1, 1974 and January 1, 1978; 5,000 between January 1, 1978 and January 1, 1981; and 5,000 between July 1, 1981 and July 1, 1984 (although options could be exercised only on January 1 or July 1 in any given year). In all cases, the strike price under the options was equal to the fair market value of the shares at the time the options were granted. The options were not transferable without the consent of the employer and were forfeited if employment was terminated during the relevant vesting period. In effect, the options were subject to graded vesting of 3, 7, and 10.5 years and the total term of the options ranged from 7 to 13.5 years. The taxpayer disclosed the transactions in his return for the 1971

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53 In order for an option to have a readily ascertainable value, either the option must be actively traded on an established stock exchange, such as the NYSE, ASE, or NASDAQ (in which case, the readily ascertainable value is equal to the price at which the option trades: Internal Revenue Code of 1986, as amended, Treas. reg. section 1.83-7(b)(1)), or its fair market value “can otherwise be measured with reasonable accuracy” (Treas. reg. section 1.83-7(b)(2)). In order for the value of the option to be measured with reasonable accuracy, the option must meet four conditions: (1) it must be transferable; (2) it must be exercisable immediately in full; (3) neither the option nor the underlying property is subject to any condition that has a significant effect on the fair market value of the option; and (4) the fair market value of the option privilege (that is, the right of the option holder to benefit from any appreciation in the value of the underlying property during the life of the option without risking any capital) must be readily determinable. In the case of virtually all non-statutory options, it is unlikely that the options trade on a recognized stock exchange or that any of the four conditions, let alone all of them, will be met.

54 [1974] 1 NSWLR 627; 74 ATC 4192 (NSW SC).

55 However, if the employee died while employed, a pro rata portion of the options accrued and vested immediately in the employee's estate, and could be exercised at any time until the end of the relevant exercise period even though the stipulated employment period had not been completed. Further exercise privileges (determined by a stipulated formula) applied in the event that the corporation was taken private or was subject to a takeover.
taxation year but claimed that no benefit arose from them. The Department of Revenue assessed the employee and included in his income an employment benefit under section 26(e) of the Income Tax Assessment Act 1936, as amended, on account of the stock options granted (valued at $0.10 per option for the first 10,000 options, $0.05 per option for the next 5,000 options, and $0.02 per option for the last 5,000 options).56

The court agreed with the department’s assessment. According to Bowen CJ,

[to say the option rights could not be exercised in the year of income is no answer to the application of s. 26(e). Indeed, it is to confuse the enjoyment of the fruit of the rights with the enjoyment of the rights, a mistake made in argument on behalf of the Crown in Abbott v Philbin. Again, to say rights are non-transferable is no answer to the application of s. 26(e). Meals which are consumed may be non-transferable and yet they are within s. 26(e). What is made assessable income by s. 26(e) is the value to the taxpayer of the benefit allowed, given or granted to him, that is to say, the rights conferred on him which others lack. Whether they have any value to him, and what that value is, are matters to be determined according to the facts of each particular case, preferably with the assistance of expert evidence. But that does not affect the principle that where such rights are given they are present rights, though exercisable in the future, and confer an immediate benefit upon the taxpayer which he enjoys as the owner of them.57

In determining the value of the options to the taxpayer, Bowen CJ stated that “notwithstanding the restrictions and conditions in the present case, the taxpayer might make an arrangement for a money sum with a purchaser by giving appropriate undertakings to remain in employment and, so far as lay within his power, to keep his present employment position or an equivalent, to exercise his option at the appropriate time in accordance with directions from his purchaser, and, subsequently, to transfer the shares when he acquired them.”58 Bowen CJ concluded that the evidence was not sufficient to indicate that the department’s valuation was wrong and accordingly dismissed the appeal.

The Donaldson decision precipitated the introduction of ITAA 1936 section 26AAC in 1974, to govern employee share acquisition schemes. Under ITAA 1936 section 26AAC, an employee is generally subject to tax at the time an option is exercised or when the option is sold. If the option is exercised, the employee must include in

56 Income Tax Assessment Act 1936, as amended (herein referred to as “ITAA 1936”). ITAA 1936 section 26(e) then provided that the assessable income of a taxpayer shall include “the value to the taxpayer of all allowances, gratuities, compensations, benefits, bonuses and premiums allowed, given or granted to him in respect of, or for or in relation directly or indirectly to, any employment of or services rendered by him, whether so allowed, given or granted in money, goods, land, meals, sustenance, the use of premises or quarters or otherwise.”
57 Supra note 54, at 643-44; 4207.
58 Ibid., at 644; 4207.
income an amount equal to the value of the shares acquired less any amount paid for the shares. The provision was subject to much abuse, particularly because the benefit could be deferred indefinitely if the shares acquired were subject to forfeiture or restrictions on their disposal. In order to counteract this abuse, a new legislative employee share scheme, ITAA 1936 division 13A, was introduced in 1995 applicable to shares or options acquired after 6 p.m. on March 28, 1995.

ITAA 1936 division 13A is considered further below, but first, a few comments are offered on the judicial approach to employee stock options. The cases referred to above vary as to the appropriate time at which stock options should be recognized as an employee benefit. LoBue and Robertson held that the benefit arose when the options were exercised. In LoBue, the court simply adopted the published practice of the Treasury. In Robertson, the court held that the stock option acquired by the employee gave rise to two benefits. The court recognized that the employee received “a benefit” when the options were granted, although it concluded that only the benefit acquired on the exercise of the options was readily quantifiable. While I disagree with the suggestion in Robertson that a stock option gives rise to two employee benefits, the conclusion reached in the decision may be justified on the basis that the benefit obtained from an employee stock option was not possible to quantify for tax purposes until the option was exercised (or the options sold); in these circumstances, the recognition of the option for tax purposes should be deferred until valuation can be reasonably determined (that is, at the time of exercise or sale). The issue is whether the particular employee stock options are simply not possible (as opposed to difficult) to value before their exercise or sale.

In all of the remaining decisions, the court concluded that the employee received a benefit from employment when the stock options were granted, despite the difficulties in ascertaining the value of the benefit on that date. Recognizing the benefit at the time options are granted is appropriate where, as in Abbott v. Philbin, the options vest immediately. However, the recognition of a benefit at the time unvested stock options are granted, which was the result in No. 247 v. MNR and in Donaldson, is contrary to the general manner in which employee benefits are recognized for tax purposes. The conclusion in Donaldson is particularly problematic in that it suggests that an employee should be taxed on the value of unvested options even if they are ultimately forfeited. This conclusion is contrary to the proposed benchmark income tax treatment for employee stock options—indeed, it is contrary to the appropriate time for recognizing any employment income—although it might be explained by the particular wording of Australia’s legislative provision governing employee benefits. Rather than referring to benefits “received” by the employee (as is the case in Canada), ITAA 1936 section 26(e) provides that the employee is subject to tax on the value of benefits “allowed, given or granted to” the employee. However, Bowen CJ’s suggestion that the taxpayer confused the fruit of the right with the right itself is mistaken, as is his reliance on Abbott v. Philbin. As noted previously, the options considered in Abbott v. Philbin vested immediately; they were not subject to any forfeiture conditions. With respect, Bowen CJ confused an employee’s promise of fruit (if certain conditions are met) with the fruit itself.
Australia’s Stock Option Legislation

Australia’s current employee stock option scheme (ignoring various tax preferences available) presents an interesting departure from the rules in Canada and the United States where employee stock option benefits are not recognized (except in limited circumstances in the United States) until the date the options are exercised, at the earliest. ITAA 1936 division 13A generally requires that the value of employee stock options\(^{59}\) be recognized on the grant date, although in the case of “qualifying rights,”\(^{60}\) the recognition and calculation of the benefit is deferred until the “cessation time”\(^{61}\) unless the employee elects to be taxed on the grant date. If an employee so elects, any restrictions affecting the exercise of the option, such as vesting or transfer restrictions, are not taken into account in determining the option’s value. However, if value is recognized on the grant date and the stock option is subsequently forfeited, the employee is considered never to have acquired the right and any tax previously paid on account of the option is refunded.\(^{62}\)

The benefit to be included in income is based on the market value of the right on the grant date or at cessation time, as the case may be.\(^{63}\) For unlisted employee

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59 ITAA 1936 division 13A also applies to shares of the employer provided to the employee. This discussion is limited to its application to stock options.

60 “Qualifying rights” are defined in ITAA 1936 section 139CD as rights that meet the following five conditions: (1) the right is acquired under an employee share scheme (defined in ITAA 1936 section 139C); (2) the company is the employer of the taxpayer or a holding company of the employer of the taxpayer; (3) the rights are to acquire ordinary shares; (4) immediately after the acquisition of the rights, the taxpayer does not hold more than 5 percent of the shares of the company; and (5) immediately after the acquisition of the rights, the taxpayer does not control more than 5 percent of the votes of the company.

61 The cessation time for a stock option is defined in ITAA 1936 section 139CB as the earliest of (1) the time the right is disposed of (other than by its exercise); (2) the time employment ceases; (3) if the right is exercised and the shares acquired are subject to forfeiture or transfer restrictions, the time when the last of those conditions ceases to have effect; (4) if the right is exercised and there are no restrictions or conditions attaching to the shares, the time of exercise; and (5) 10 years after the time the taxpayer acquired the right.

62 ITAA 1936 section 139DD.

63 ITAA 1936 section 139CC(2) applies if the calculation date is the grant date (that is, where the option is not a qualifying right or where the option is a qualifying right and the taxpayer has elected to be taxed in the year the options are acquired). Under ITAA 1936 section 139CC(2), the value of the benefit is equal to the market value of the right on the grant date less any consideration paid by the employee to acquire the right. ITAA 1936 section 139CC(3) applies if the calculation date is the cessation time (that is, where the option is a qualifying right and no election is made). Generally speaking, the value of the benefit at the cessation time is equal to the market value of the right (or the share acquired if the cessation time is when the right is exercised) less any consideration paid by the employee to acquire the right and, if the right has been exercised, the exercise price. However, if the taxpayer disposes of the stock options or any shares acquired pursuant to the exercise of the options within 30 days after the cessation time in an arm’s-length transaction, then the amount or value of the consideration received on the disposition is used to determine the employee benefit, rather than the market value of the option at the cessation time.
stock options, ITAA 1936 division 13A provides specific rules for determining the market value of the option. In particular, if the term of the option does not exceed 10 years, the market value is determined by multiplying the strike price under the option by a percentage specified in tables provided in ITAA 1936 division 13A.64 If the term of the option exceeds 10 years, the market value is the greater of the value of the option determined as if the term were 10 years and the arm’s-length value as specified in a written report prepared by a suitably qualified person in a form approved by the commissioner.

Unfortunately, the legislative history of ITAA 1936 division 13A and published commentary on the provision do not disclose where the percentages provided in the tables came from. The fact that the same percentage is used for all employee stock options of any corporation that share two particular characteristics—the same exercise period and the same “calculation percentage”65—implies that they could not possibly be derived from an application of the Black-Scholes model or any other option pricing model (in which the volatility of the share price is an important factor). The factors used in determining the percentages in the tables—

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64 The percentage is determined on the basis of the “calculation percentage” and the exercise period under the option. “Calculation percentage” is the percentage that the market value of the share on the particular day (the grant day or the cessation time, as the case may be) is of the strike price under the option. For example, if the particular day were the grant day and the strike price were equal to the value of the share on that day, the calculation percentage would be 100 percent. The exercise period is the period, in months, from the particular day (that is, the grant day or cessation time, as the case may be) until the last day on which the option may be exercised. For example, if market value were determined on the grant date for a 10-year option, the exercise period would be 120 months.

If the calculation percentage is less than 50 percent, the market value of the right is nil: ITAA 1936 section 139FL(1).

If the calculation percentage is equal to or greater than 50 percent and less than 110 percent, the market value is determined using the rules for table 1 (in which percentages range from 0 percent to 24.7 percent): ITAA 1936 sections 139FL(2) and 139FM. For example, if the calculation percentage were 100 percent and the exercise period were 10 years (120 months), the percentage in table 1 would be 20.0 percent. Thus, if the strike price under the option were $1 per share, each option would have a market value on the grant date of $0.20.

If the calculation percentage is equal to or greater than 110 percent, the market value is determined using the rules for table 2: ITAA 1936 sections 139FL(3) and 139FN. The rules for table 2 require that the strike price be multiplied by a fraction that is the aggregate of a base percentage (set out in the first column of table 2) that is identical to the percentages in the last column of table 1 (that is, applicable for a calculation percentage equal to or exceeding 107.5 percent and less than 110 percent) plus an additional amount (equal to the excess of the calculation percentage over 110 percent multiplied by an “additional percentage” set out in the second column of table 2). Consider a 10-year option (exercise period of 120 months) with a strike price of $1, where the fair market value of the shares on the grant date is $1.20. The calculation percentage would be 120 percent. Under table 2, the base percentage would be 24.7 percent and the additional percentage (in column 2) would be 0.6 percent, so that the amount to be added to the base percentage would be 6 percent (0.6 × (120 – 110)), and the fair market value of the option on the grant date would be $0.307.

65 Supra note 64.
exercise period and intrinsic value of the option—suggest that they reflect the minimum value of the option (that is, taking into account only intrinsic value and the time value of money but ignoring volatility).

For employers, ITAA 1936 division 13A permits a deduction on account of employee stock options only if the options meet three conditions: they are not subject to forfeiture; they are subject to a minimum holding period of three years; and they are offered to employees on a non-discriminatory basis. Even so, the maximum deduction permitted to the employer for each employee to whom such options are granted is $1,000.

In short, ITAA 1936 division 13A provides a degree of certainty to the manner in which employee stock options are valued and reported. However, in the case of an employee stock option that is not publicly traded (that is, most employee stock options), the provisions do not reflect an accurate assessment of the option’s value on the grant date.

The Appropriate Benchmark Treatment of Employee Stock Options

In summary, the appropriate benchmark treatment of employee stock options is to treat the options in the same manner as any other non-cash compensation from employment: the employer should recognize as an expense the value of the options at the time that an unconditional legal obligation arises to honour the options and the employee should include in income the value of options that are then received. Thus, the employee should include in income and the employer should claim as a deduction the fair market value of the stock options on the date the options vest. While this treatment obviously presents valuation difficulties in many cases—and reasonable assumptions will have to be made in determining the value of relevant factors to be taken into account, such as the expected life of the option and the expected volatility of the underlying stock—similar valuation issues exist in other circumstances. For example, the fair market value of shares of a private corporation must be determined in circumstances such as the death of a shareholder or on a non-arm’s-length transfer of shares. Even the preferential treatment accorded to employee stock options under the Act may be dependent on correctly valuing the shares of a private corporation because preferential treatment is, in most cases, contingent on the strike price under the option being equal to the fair market value of the shares on the date the option is granted. Valuing private corporation shares is as much an art as it is a science and involves making assumptions about the future profitability of the corporation.

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66 ITAA 1936 section 139DC(1).

67 ITAA 1936 section 139DC(2). The deduction is equal to the lesser of $1,000 and the aggregate market value of the shares or rights provided to the employee in the particular year.

68 See, for example, the recent decision of McClintock v. The Queen, 2003 TCC 259, in which the employee was denied the preferential treatment of employee stock options because the strike price was found to be less than the value of the underlying shares on the grant date.
The valuation difficulties associated with employee stock options could be alleviated considerably if recognition were deferred until the options are exercised, as is generally the case under the Act.69 If it is simply not possible to reasonably value employee stock options when they vest, their recognition (as an expense to the employer and income to the employee) should be deferred until their value becomes more certain (that is, until the time of exercise or sale). In my view, option pricing models are sufficiently well developed to permit a reasonable valuation at the time that options vest. If this benchmark treatment were adopted in Canada, the administrative burden of determining the value should be borne by the employer, who should be required to report the value on the employee’s T4. If the Canada Customs and Revenue Agency disputed the value, it would be left to a court to weigh the competing opinions of experts in determining the correct value. Valuation disputes arise in many circumstances under the Act, including the provision of other forms of non-cash compensation to employees.70 Employee stock options are not unique in this respect, although the valuation issues that they pose (in the case of options that are not publicly traded) may be among the most challenging.

If the value of the stock option were recognized on the vesting date, this amount (plus the amount, if any, that the employee paid for the option) would be considered the cost of the option to the employee. Going forward, the option would be treated in the same manner as any other option granted by a corporation for its own shares.71

It is highly unlikely that this benchmark treatment will be adopted in Canada in the foreseeable future. Indeed, the recent trend has been to increase the favourable tax treatment of employee stock options, by deferring tax until the sale of the underlying shares and by reducing the amount of the benefit subject to tax. In any tax expenditure analysis of employee stock options, this favourable treatment should be evaluated against the proposed benchmark treatment for employee stock options.

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69 Section 7. However, if the shares are not publicly traded at the time of exercise, the value of the stock option benefit remains dependent on the valuation of shares of a private corporation.

70 See, for example, Mommersteeg et al. v. The Queen, 96 DTC 1011; [1995] 2 CTC 2767 (TCC), concerning the value of frequent flyer awards under paragraph 6(1)(a).

71 Supra notes 3 through 8 and accompanying text. A criticism of the rules in section 49 is beyond the scope of this paper.