

Equity-Based Alternatives to Stock Options

DISCUSSION BRIEF

David Crawford • Bridget da Silva



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Preface

The Canadian Performance Reporting Board (CPRB) of the Chartered Professional Accountants of Canada (CPA Canada) has commissioned this Discussion Brief *Equity-Based Alternatives to Stock Options* to assist public companies in understanding the alternative forms of equity-based compensation.

Stock options have been widely used by public companies as part of equity-based compensation plans. However, public companies have become increasingly concerned about the disconnect between the stock option expense and the ultimate benefit realized by the employee. Furthermore, many public companies are trying to reduce emphasis on stock options and use other forms of equity-based compensation in response to market demands.

The focus of this Discussion Brief is to provide an overview of equity-based compensation alternatives, the high-level accounting implications and the decision-making factors to consider when determining equity-based compensation structures.

The CPRB thanks the authors, David Crawford and Bridget da Silva from Hugessen Consulting and acknowledges the contribution of the working group involved with the publication, including Pamela Campagnoni and Chris Hicks, CPA Canada; Vicki Kovacs, PricewaterhouseCoopers LLP; Anne Montgomery, Deloitte; Courtney Pratt, Knightsbridge; and Michael Samis, EY Canada.

The CPRB is responsible for providing vision and leadership to the work of CPA Canada in advancing the measurement and reporting of organizational performance, focusing on publicly-traded entities. In fulfilling its mandate, the CPRB approved the development of *Equity-Based Alternatives to Stock Options*.

We welcome comments on this publication. These comments should be sent to the CPA Canada contact noted below.

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Introduction

To date, stock options have been the dominant form of equity-based compensation (or “equity pay”) for small and mid-size publicly-traded companies in Canada. As a result, stock options are generally very well understood, and it has become relatively simple to design and administer these types of compensation plans.

More recently, there have been reasons to question whether stock options are the most appropriate form of equity pay for many of these companies. Two issues in particular stand out: (i) frustration with accounting standards and valuation methodologies, where there is often a significant and largely fixed cost regardless of whether the stock options ultimately provide benefit to the employees or not; and (ii) the general movement by large-cap Canadian companies (largely in response to shareholder demands) to reduce the emphasis on stock options and introduce other forms of equity pay.

The equity pay structures to which these larger companies have moved (e.g., cash-settled, full-value share units) are not necessarily the optimal structure for smaller organizations.

This discussion brief provides an overview of alternative equity compensation structures for small and mid-size Canadian public companies, as a first step in the process of determining what kinds of these structures may be adopted. This paper also highlights key decision-making factors of the outlined alternatives, including: business/strategic considerations, reporting requirements and taxation consequences.

This paper is intended to provide an overview of equity compensation structures and to facilitate a meaningful discussion between boards and management teams. The alternatives presented and discussed in this publication may not be practical or feasible for every company. The information contained herein is in reference to publicly-traded Canadian companies (i.e., companies

reporting in accordance with International Financial Reporting Standards (IFRSs)). The accounting implications discussed are for the purposes of illustration, and to provide a high level overview of consequences — this discussion brief is not intended to be a strict guide for the application of IFRSs. Any company considering the implementation of an equity-based compensation plan should seek professional advice (legal, tax, accounting, compensation). There are unique taxation and accounting issues for private companies, and for U.S. companies. Employees subject to U.S. taxation on employment income, including directors' fees, also are subject to additional tax considerations that are not addressed in this paper.

Overview of Basic Equity-Based Vehicles

There are two basic forms of equity-based vehicles for compensation purposes: stock options and full-value equity.

Stock Options

A stock option gives the holder the right (but not the obligation) to purchase a share at a fixed price for a specified period of time. Stock options often have vesting conditions.

The value received equals: Number of options × (share price – exercise price)

Figure 1: Simple Stock Option Illustration

Stock Option	Award	→	Exercise	
Number of units	10,000		10,000	[A]
Exercise price	\$10.00		\$10.00	[B]
Share price	\$10.00		\$15.00	[C]
		Value	\$50,000	
		[A] × ([C] – [B])		

Full-Value Equity

These are compensation vehicles linked to the full value of a company's common shares; again, often with vesting conditions. The two most common forms of full-value equity among publicly-traded companies are Restricted Share Units (RSUs) and Performance Share Units (PSUs).

The value of the RSUs equals: Number of vested units × ending share price

Figure 2: Simple RSU Illustration

RSU			
	Award	→	Settlement
Number of units	10,000		10,000 [A]
Share price	\$10.00		\$20.00 [B]
		Value	\$200,000
		[A] × [B]	

The value of the PSUs equals: Number of vested units × ending share price × performance multiplier

Figure 3: Simple PSU Illustration

PSU			
	Award	→	Settlement
Number of units	10,000		10,000 [A]
Share price	\$10.00		\$20.00 [B]
<i>Illustrative performance multiplier* (0.5x - 1.5x)</i>			1.25x [C]
		Value	\$250,000
		[A] × [B] × [C]	
*based on achievement against targets			

For dividend-paying companies, a design decision is needed as to whether dividends (or dividend equivalents) are included in the RSU/PSU structure. The illustrations in this document do not include dividends.

Basic Equity-Based Vehicle Structures

Most long-term incentive plans can be structured as either Equity or Liability plans. We will provide a brief summary of some of the key differences between equity and liability-structured plans; a more detailed comparison follows later in this paper.

It is important to understand that, in essence, an equity-settled structure represents a transaction between the owners of the business (i.e., the shareholders); whereas, a liability-settled structure represents a transaction between a company and its employee. The resultant accounting and tax consequences for each type of structure fall naturally from this distinction.

Equity Structure: Settlement/funding by shares

Traditional stock options are structured as equity-settled plans. While less common, RSUs and PSUs can also be equity-settled plans.

Key Features

- Accounting treatment: generally the income statement cost is fixed based on the fair value of the equity-settled award at the date of grant; and the change in fair value goes to other comprehensive income.
- Corporate tax: company generally does not receive a corporate deduction.
- Individual tax: no tax on date of grant; stock options generally receive preferential tax treatment, full-value units are taxed at full marginal rates upon settlement.
- These structures are potentially dilutive and require shareholder approval.

Liability Structure: Settlement/funding by cash payment based on the price of the underlying share

The most common alternatives to stock options (i.e., the RSU and PSU programs to which most of Canada's largest companies have moved, as referenced above) are liability structures.

Key Features

- Accounting treatment: generally, the accounting cost is based on the fair value of the liability which is re-measured at the end of each reporting period and at the date of settlement.
- Corporate tax: company generally receives a corporate deduction at settlement.
- Individual tax: no tax on date of grant provided certain tax restrictions are satisfied; generally taxed at full marginal rates upon settlement.
- Non-dilutive and no shareholder approval required.

Key Considerations: Business Characteristics and Program Objectives

Companies must consider a number of factors in determining the ideal equity-based compensation structure. Some key considerations are outlined below.

Objectives of the Program

The overall objectives of an equity compensation plan will influence which design is chosen and implemented. Common objectives include:

- **Attract talent:** to attract the right employees, a company will want to consider what is competitive in its industry—both from a pay level and pay structure perspective.
- **Incent performance:** strike a balance between measures of success for the company/shareholders and over what the employee has “line of sight” influence. For many small and mid-size organizations, an important objective of an equity compensation plan is to coalesce the management team around a common goal.
- **Alignment with shareholders:** to ensure participants have sufficient “skin-in-the-game” and to reinforce a culture of ownership.
- **Retention of key personnel:** consider how to create retention mechanisms (e.g., through deferral of compensation and vesting/forfeiture conditions).

Use of Equity or Liability Structure

The following are some common considerations in evaluating the attractiveness of an equity or a liability structure:

- If a company is growing and cash-constrained, an equity structure may be more attractive as it will not require cash to settle awards.
- For some companies, having predictable accounting costs (i.e., accounting based on grant date fair value) is important, which may make the fluctuating exposure to share price that comes from liability accounting unattractive.
- Typically, payouts under a liability-structured equity plan are a tax-deductible expense to the company—a feature which may be attractive for profitable companies looking to reduce their income tax payable.
- If shareholder dilution is of concern to the company's shareholders, a liability plan may be more attractive as it will not dilute current shareholders' ownership.
- If illiquidity of a company's shares is of concern, a liability plan may be more attractive as it doesn't require a liquid float.
- For employees of public companies, only stock options (structured appropriately) provide favourable tax rates to the individual.

Incorporation of Performance Conditions into Equity-Based Compensation

How a company defines and measures success should dictate how it incorporates performance features into its equity compensation plans. For many companies, share price is viewed as the best measurement of success; in this case, a company may not feel that it is necessary to include additional performance measures in its equity compensation plans. For those organizations where there is a desire to link equity pay outcomes to performance beyond that of the underlying share price, additional performance conditions can be incorporated. Expanded performance frameworks range from increased leverage on share price performance (e.g., total shareholder return [TSR] performance framework), to other performance measures such as free cash flow, return on equity (ROE), earnings before interest, taxes, depreciation and amortization (EBITDA), and residual income, to name a few.

The time horizon over which meaningful performance objectives can be set is also important. It may not be practical or desirable for a small company to set multi-year performance goals—in such situations, the company could link the equity grants and/or payouts to performance under the annual incentive plan.

In contrast, a larger, more mature company will likely find it easier and more desirable to incorporate a multi-year performance framework into its equity incentive plans (e.g., a three-year EBITDA target).

In setting an equity compensation plan performance framework, it is essential to understand what measures of success are critical to various stakeholders and shareholders in particular.

Other Factors

It is important to consider the administrative costs (direct and indirect) of the various approaches being considered, for example, the overall cost of equity compensation programs in relation to the company's earnings, and the cost of stock option valuations.

As part of ensuring that the pay design and amounts are responsible, some level of scenario testing and/or stress testing is important. The board and management should be comfortable with the full range of possible outcomes as it relates to both plan payouts and the impact on the company (e.g., financial results, cash requirements, dilution, etc.).

Table 1: Common Design Features of Equity Compensation Plans

Most equity compensation plans have design features that need to be determined, including:

Design Feature	Description and Consideration(s)
Term of award	<ul style="list-style-type: none"> The period of time to settlement (e.g., settlement in 3 years) or expiry (e.g., right to shares expires in 5 years)
Performance criteria	<ul style="list-style-type: none"> Are there performance conditions or criteria linked to the equity compensation? <ul style="list-style-type: none"> Note: performance can also be factored into the granting amount (see Granting approach, below)
Granting approach	<ul style="list-style-type: none"> How are grants determined? Are they based on a competitive or policy amount and/or are they based on a performance assessment? Related features include: <ul style="list-style-type: none"> Granting frequency (e.g., annually) Grant size for each participant
Vesting and termination provisions	<ul style="list-style-type: none"> An award is vested when a participant is entitled to the award (i.e., exercise or settlement is no longer contingent upon meeting any conditions such as service or performance). The vesting period generally refers to the period during which any specified vesting conditions are to be satisfied. Once an award is vested, a participant generally has the right to exercise the award, or the award has been effectively "earned" (albeit may still have to wait until settlement date to receive benefit)

Design Feature	Description and Consideration(s)
Vesting and termination provisions <i>(continued)</i>	<ul style="list-style-type: none"> • To understand a participant's rights to an outstanding award at any given time requires looking at both the vesting terms of the award, and the related termination provisions, including retirement; thus, it is important to understand and be comfortable with the treatment of the equity compensation plan under various termination scenarios, which may include: <ul style="list-style-type: none"> — Termination for cause — Resignation — Termination without cause — Retirement or "approved retirement" — Termination linked to a change of control — Death or disability
Change of control or major company transaction	<ul style="list-style-type: none"> • There are numerous issues and scenarios that should be considered and addressed at the outset of the plan • Treatment on a change of control, in part, depends on how the plan is structured and on the underlying goals of the plan: <ul style="list-style-type: none"> — If a plan is settled in shares from treasury, the plan only could extend beyond the transaction if there is the ability to roll the rights into that of the surviving share <ul style="list-style-type: none"> » Note: it is often desirable to maintain the retention features of the plan through a transaction, thereby keeping a retention element — If a plan is settled in cash, then there is no design reason to settle on a transaction; the settlement date can remain. Although, for practical reasons, the amount may need to be determined on the transaction date • It is important not to vest awards inadvertently on a change of control; best practice is, where possible, to have a double trigger where both change of control and termination of employment are required for equity awards to vest

Stock Options

Historically, stock options have been a very useful compensation tool for a number of reasons: (i) they can provide the opportunity for significant wealth creation for the option holders; (ii) they are well understood by most stakeholders and expected by the work force; (iii) they require no cash from the company to settle awards; (iv) they are relatively simple to implement and administer; and (v) they may align the interests of managers and shareholders. There are various perspectives on whether or not stock options are well aligned to shareholders' interests.

However, preparers and users of financial statements in small to mid-size companies¹ often find that the accounting consequences of stock options are inconsistent with the eventual benefit received by the employee. For instance, if an option that vests is never exercised, the company cannot reverse its cost.

There are two main causes for this problem among small and mid-size organizations. The first is that option valuation models use historical share price volatility to predict future share price volatility—and this value tends to be much higher for small and mid-size companies. The second is that these companies typically have a very low dividend rate—and often no dividend at all. High volatility combined with a low dividend yield produce very significant and perhaps misleading option values.

The sample calculation below shows how the option value at organizations with low share price volatility and high dividends compares with that of organizations with higher volatilities and low to no dividend.

¹ While these issues tend to be more germane to SMEs, some large organizations face them as well.

Figure 4: Stock Option Value Illustration

Stock Option Value Illustration					
Share Price (grant date)	\$25.00				
Exercise price	\$25.00				
Expected life	5 years				
Risk-free rate	2.0%				
Volatility Level	Low	Med	High	Very High	
Volatility (%)	15.0%	20.0%	30.0%	50.0%	70.0%
Dividend yield (%)	4.0%	2.5%	1.5%	0.0%	0.0%
Option Value (\$)	\$2.35	\$4.03	\$6.68	\$11.74	\$15.15
<i>% grant share price</i>	<i>9.4%</i>	<i>16.1%</i>	<i>26.7%</i>	<i>47.0%</i>	<i>60.6%</i>

It should be noted that there are emerging examples of organizations that have introduced capped stock options. A capped stock option may remove the extreme payout scenarios that would otherwise significantly contribute to the grant date value and the high accounting cost of options on volatile stocks. Please refer to the discussion in Appendix B—Section 2 of this Discussion Brief for more information.

Table 2: Accounting Treatment of Traditional Stock Options

Traditional Stock Options (equity settled, no performance conditions)	
Fair value determination	Typically determined at grant date
Recognition	<ul style="list-style-type: none"> • No entry at grant date • At each reporting period: <ul style="list-style-type: none"> — Income Statement² (DEBIT): expense amortized over the vesting period (forfeiture estimate revised at each reporting period) — Balance Sheet (CREDIT): included within equity over the vesting period

The accounting implications provided herein focus on cumulative accounting expense to the company. There may be other presentation, recognition, and measurement issues that are not addressed in this Discussion Brief.

² Assumes that option costs are expensed; there are situations where these costs can be capitalized (e.g., mining start-ups).

Full Value Equity-Based Awards

There are two basic design approaches for equity-based compensation plans calibrated in full-value shares: Restricted Share Units (RSUs) and Performance Share Units (PSUs).

RSUs and PSUs

RSUs and PSUs are vehicles linked to the full value of a company's shares that pay out at the end of the vesting period (typically three years for cash-settled awards), subject to the continued employment of the participant over that period. RSUs vest solely based on time; PSUs are RSUs with vesting based on the achievement of future performance conditions. The actual award of PSUs may range from zero to a multiple of the initial target award based on performance achieved.

Vesting beyond three years generally requires the delivery of newly issued or treasury shares due to Canadian income tax restrictions.

There are two alternatives available for the settlement of awards:

1. **Equity settled**—issuance of shares
2. **Cash settled**—value of vesting award paid in cash based on the price of equity instruments

As noted above, the desired duration of the award can have a significant impact in determining the settlement structure adopted.

Table 3: Accounting Treatment of Full-Value Equity-Based Awards

	Equity Settled	Cash Settled																									
Fair value determination	Based on fair value at date of grant	Based on fair value at each reporting period end and at date of settlement ³																									
Recognition	<ul style="list-style-type: none"> No entry at grant date At each reporting period: <ul style="list-style-type: none"> Income Statement⁴ (DEBIT): expense amortized over the vesting period (forfeiture estimate⁵ revised at each reporting period) Balance Sheet (CREDIT): included within equity over vesting period 	<ul style="list-style-type: none"> No entry at grant date At each reporting period: <ul style="list-style-type: none"> Income Statement⁶ (DEBIT): <ul style="list-style-type: none"> Expense amortized over vesting period (forfeiture estimate⁷ revised at each reporting period) Changes in fair value are recognized in profit or loss for the period Balance Sheet (CREDIT): included as a liability over the vesting period 																									
Vesting	<p>“Cliff” Vesting (i.e., awards vest 100% at a certain date)</p> <ul style="list-style-type: none"> Cost amortized over vesting period <p>Ratable Vesting (i.e., awards vest evenly over a certain period of time)</p> <ul style="list-style-type: none"> IFRSs requires issuers to separately determine the fair value of each award with a different vesting period and to recognize the cost over each vesting period (even if these awards are made in a single grant) <p><i>Example:</i> 15,000 RSUs vest ratably over 3 years—their cost is recognized as follows:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>Year 1</th> <th>Year 2</th> <th>Year 3</th> <th></th> </tr> </thead> <tbody> <tr> <td>Tranche 1 (33%)</td> <td>5,000</td> <td>—</td> <td>—</td> <td>accrue fully in year 1</td> </tr> <tr> <td>Tranche 2 (33%)</td> <td>2,500</td> <td>2,500</td> <td>—</td> <td>accrue over years 1 and 2</td> </tr> <tr> <td>Tranche 3 (33%)</td> <td>1,666</td> <td>1,666</td> <td>1,667</td> <td>accrue over years 1-3</td> </tr> <tr> <td>Total</td> <td>9,166</td> <td>4,166</td> <td>1,667</td> <td></td> </tr> </tbody> </table>			Year 1	Year 2	Year 3		Tranche 1 (33%)	5,000	—	—	accrue fully in year 1	Tranche 2 (33%)	2,500	2,500	—	accrue over years 1 and 2	Tranche 3 (33%)	1,666	1,666	1,667	accrue over years 1-3	Total	9,166	4,166	1,667	
	Year 1	Year 2	Year 3																								
Tranche 1 (33%)	5,000	—	—	accrue fully in year 1																							
Tranche 2 (33%)	2,500	2,500	—	accrue over years 1 and 2																							
Tranche 3 (33%)	1,666	1,666	1,667	accrue over years 1-3																							
Total	9,166	4,166	1,667																								
Employment vesting conditions	<ul style="list-style-type: none"> Issuer accounts for expected employee forfeiture (i.e., for employees who leave company prior to vesting) Forfeiture estimate revised at each reporting period based on updated info (with final revision at vesting date based on the actual number vested) 																										

3 Some companies may manage the exposure of earnings to stock market movements by purchasing shares on the market and holding in a trust and/or through the use of other hedging arrangements (e.g., using derivative instruments). A detailed discussion of these practices is beyond the scope of this paper, and anyone considering such practices should seek professional advice.

4 Assumes that option costs are expensed; there are situations where these costs can be capitalized (e.g., mining start-ups).

5 Refer to “Employment vesting conditions.”

6 Assumes that option costs are expensed; there are situations where these costs can be capitalized (e.g., mining start-ups).

7 Refer to “Employment vesting conditions.”

Equity Settled	
Performance Conditions⁸	<p>Performance conditions (i.e., require specified performance targets to be met in order for an award to vest—e.g., EBITDA targets. A performance condition might include a market condition (see below)). For performance conditions that do not involve market conditions:</p> <ul style="list-style-type: none"> • Not considered in determining the fair value of awards • Issuers recognize the cost over the vesting period using the best estimate (e.g., based on interim performance against targets) of the number of equity instruments that will vest (revised each reporting period) • If conditions are not met and awards do not vest, the cumulative cost already recognized is reversed <p>Market Conditions (i.e., performance conditions related to the issuer's share price—e.g., vesting based on achievement of a target stock price or a target total shareholder return)</p> <ul style="list-style-type: none"> • These considerations are factored into and become part of the determination of fair value; they are not considered for purpose of estimating forfeitures each period • Provided all other vesting conditions are satisfied, compensation cost is recognized irrespective of whether the market condition is met (i.e., cost cannot be reversed if the condition is not met and the awards do not vest)

The accounting implications provided herein focus on cumulative accounting expense to the company. There may be other issues of presentation, recognition, and measurement not addressed in this Discussion Brief.

⁸ For equity-settled plans, the distinction between performance conditions that do not include market conditions, and those that do, is important due to the potentially significant impact on the cumulative cost. For cash-settled plans, the distinction is less important as the cumulative accounting cost is ultimately based on the fair value at the date of settlement. (It should be noted, however, that there is currently some debate regarding the measurement of cash-settled plans that include a performance condition. One view is that the fair value measurement each period should reflect the impact of all conditions. Another view is that the measurement of cash-settled plans that include a performance condition should be consistent with the measurement of equity-settled plans that include a performance condition. At the time of this publication, the IFRS Interpretations Committee is considering whether an amendment to IFRS 2, Share-based Payment, is necessary.)

Examples: Cumulative Accounting Costs of Equity vs. Liability Structure

The examples below demonstrate the different cumulative accounting costs under equity vs. liability equity compensation plans.

Figure 5: Cumulative Accounting Cost Illustration (RSU)

RSUs		Award	→	Settlement	
		Yr 0		Yr 3	
# RSUs		10,000		10,000	
Share price		\$10.00		\$15.00	
A. Equity structure			Payout	10,000	shares issued from treasury
			<i>Value to employee</i>	<i>\$150,000</i>	
B. Liability structure (cash)			Payout	\$150,000	
A. Cumulative accounting cost = \$100,000 (equity grant) = 10,000 × \$10					
B. Cumulative accounting cost = \$150,000 (cash payout) = 10,000 × \$15					

Figure 6: Cumulative Accounting Cost Illustration (PSU)

PSUs		Award	→	Settlement	
		Yr 0		Yr 3	
# PSUs		10,000		10,000	
Share price		\$10.00		\$15.00	
				<i>1.25x</i>	
<i>Illustrative performance multiplier (0.5x - 1.5x)</i>					
A. Equity structure			Payout	12,500	shares issued from treasury
			<i>Value to employee</i>	<i>\$187,500</i>	
B. Liability structure (cash)			Payout	\$187,500	
A. Cumulative accounting cost = \$125,000 (equity grant) = 1.25 × 10,000 × \$10					
B. Cumulative accounting cost = \$187,500 (cash payout) = 1.25 × 10,000 × \$15					

Note: Value to employee is shown on a pre-tax basis.

Example: Recognition of Accounting Costs

Cliff-Vesting RSU

- Issuer grants 10,000 RSUs to an employee
- RSUs have the following terms:
 - Three-year cliff vesting conditional on continued employment
 - Fair value of \$10 per share on grant date (share price at the end of year: 1=\$11.00, 2=\$12.50, 3=\$15.00)

Figure 7: Financial Statement Recognition (Equity Settled)

Year End	RSUs (a)	Share Price	FV per RSU* (b)	Vesting Period Completion (c)	Equity (d = a × b × c)	Cost for period
Year 1	10,000	\$11.00	\$10.00	33%	\$33,333	\$33,333
Year 2	10,000	\$12.50	\$10.00	67%	\$66,667	\$33,333
Year 3	10,000	\$15.00	\$10.00	100%	\$100,000	\$33,333

*Grant date fair value

Figure 8: Financial Statement Recognition (Cash Settled)

Year End	RSUs (a)	Share Price	FV per RSU** (b)	Vesting Period Completion (c)	Liability (d = a × b × c)	Cost for period
Year 1	10,000	\$11.00	\$11.00	33%	\$36,667	\$36,667
Year 2	10,000	\$12.50	\$12.50	67%	\$83,333	\$46,667
Year 3	10,000	\$15.00	\$15.00	100%	\$150,000	\$66,667

**Reporting period end fair value

Additional features to note:

- Employment vesting conditions: In addition to the attributions shown above, IFRS requires an estimate of the share units that would be forfeited (e.g., by employees leaving).
- Performance-based vesting conditions: Attribution of cost/expense would include an adjustment for performance conditions that are not market conditions.
- If ratable vesting, would deal with each tranche separately.

Longer-Term Vesting

Certain full-value equity-based structures can allow for longer (i.e., beyond three years) award terms (i.e., the time to settlement or expiry). In general, settlement with newly issued or treasury shares provides more flexibility on timing (i.e., fewer tax limitations). For cash-settled plans to have a term longer than three years generally requires the use of Deferred Share Units (“DSUs”), instruments that take advantage of specific language in the *Income Tax Act* to have cash-settled vehicles which may settle beyond three years from the date of the grant (see discussion below).

Longer-Term Equity (equity settled)

These awards are similar to cash-settled RSU or PSU plans, but are settled only through the delivery of newly issued or treasury shares, rather than with a cash payment.

The vesting date effectively determines when the recipient has a right to all or a portion of the grant. When using treasury shares, vesting can be separate from the settlement—as shown in the example below, the recipient has earned the right to the full award within three years, but settlement does not occur until seven years.

Figure 9: Longer-Term Equity

Longer Term Equity			
	Award Yr 0	Vested Yr 3	Settlement* Yr 7
# units	10,000	10,000	10,000
Share price	\$10.00	\$15.00	\$25.00
Equity structure		Payout	10,000 shares issued from treasury
		<i>Value to employee</i>	<i>\$250,000</i>
<i>Cumulative accounting cost = \$100,000 (equity grant)**</i>			
*Settlement can be fixed (e.g., half settled in 5 years and half settled in 7 years) or flexible (i.e., can elect to redeem units and require units to be issued from treasury — e.g., between Yr 4 and Yr 7).			
**A deferred settlement period may raise questions about valuation of the award and whether a discount should be applied in determining value for both accounting and tax purposes. Consultation with professional advisors on valuation issues is recommended.			

Note: Value to employee is shown on a pre-tax basis.

DSUs (typically cash settled)

DSUs are notional shares of the company that do not settle until the participant leaves the company. They are like RSUs, but with a longer deferral. It is possible to design vesting and/or performance conditions similar to RSUs and PSUs, but there is no automatic payout upon vesting.

Figure 10: DSUs

DSUs			
	Award Yr 0	Vested Yr 3	Retirement* Yr 7
# DSUs	10,000	10,000	10,000
Share price	\$10.00	\$15.00	\$25.00
Liability structure (cash)		Payout	\$250,000
<i>Cumulative accounting cost = \$250,000 (cash payout)</i>			
*automatic payout upon retirement or other exit from the company, as opposed to a pre-determined fixed settlement date			

Note: Value to employee is shown on a pre-tax basis.

Provided that certain requirements are satisfied, DSUs can be cash settled without triggering adverse tax consequences for participating employees. Note that, while not common, DSUs can also be equity settled. The cumulative accounting cost in the above example, if DSUs were equity settled, would be based on the grant date fair value (in this example, assumed to be \$100,000).

Other Considerations

Other important considerations when designing or modifying a long-term incentive plan:

Table 4: Other Considerations

Feature	Potential Issue
Participants working in or from jurisdictions other than Canada	<ul style="list-style-type: none"> There may be tax consequences for these participants in their home country or the country in which they reside.
Additional performance conditions on equity compensation plans	<ul style="list-style-type: none"> As noted earlier, there may be value estimation issues requiring in-depth numerical techniques.
Currency implications	<ul style="list-style-type: none"> There may be currency risk for participants and/or operations outside of Canada that should be understood. Currency risk can be on the Canadian share price, where revenue, expenses, financing or assets are influenced by other currencies. It can also be specific to individual participants residing in another country.
Corporate transactions/ takeovers	<ul style="list-style-type: none"> It is important to consider possible types of corporate transactions in the future to anticipate and understand how best to treat equity compensation plans.

APPENDIX A

Mini Case Studies

The following mini case studies are intended as illustrative examples, to provide insight into some of the key considerations when determining an appropriate equity compensation plan.

Example A

Scenario:

- Non-revenue generating company—cash-constrained; corporate deductibility not a concern.
- Highly volatile stock—option valuations extremely high.
- Directors like the longer term nature of stock options, but not the significant accounting costs associated with them.
- Types of companies: start-ups, mining, oil & gas, biotech, etc.

Equity compensation plan to consider: Grant long-term share awards (a promise to issue shares) instead of options with a fair market value exercise price

- Participants receive grants of long-term share units.
- Each unit gives the participant the right to receive one treasury share between Year 4 and Year 7.
- When the participants exercise, they receive company shares issued from treasury.
- Creates a vehicle with many of the characteristics of a stock option (e.g., longer-term, accounting based on grant date value, transparent value), but using full value shares.
- There is tangible value in these awards (akin to notional ownership) that is aligned with the accounting cost.

- As there is tangible value in the awards, employees may be willing to accept many fewer units, thus reducing potential dilution of a stock option plan.
- There may be enough future variation in the share price to align pay with performance.

Figure 11: Example A

Example A		Award	Vesting	Expiry
		Yr 0	Yr 4	Yr 7
# units	10,000			
Share price	\$10.00			
			Payout (10,000 shares)	
			share price	value
			\$5.00	\$50,000
			\$10.00	\$100,000
			\$20.00	\$200,000
			\$25.00	\$250,000
<i>Expense fixed at \$100,000 at grant date</i>				
<i>Fully taxable to employee at settlement</i>				
<i>No corporate tax deduction for company</i>				

Example B

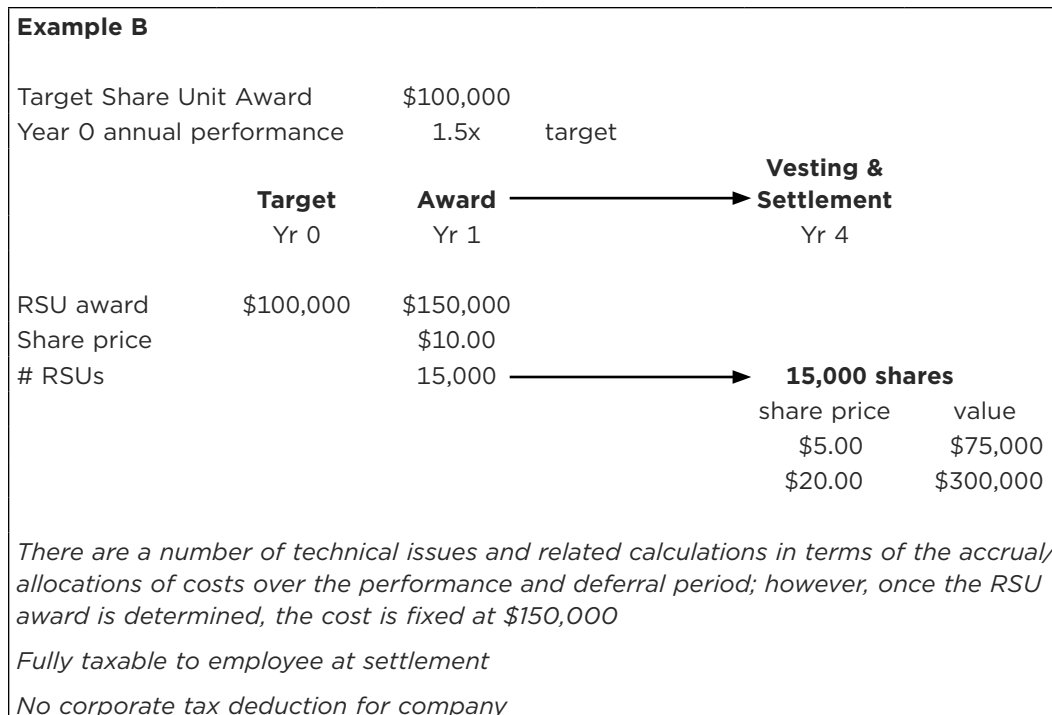
Scenario:

- Company is experiencing significant change.
- Company likes to manage funding and costs on an annual basis, as multi-year performance goals are difficult both to set and to budget for.

Equity compensation plan to consider: Treasury RSU plan with grant sizes linked to annual incentive program

- Each year participants receive an annual cash bonus and a share unit bonus
 - A formal compensation plan exists at the beginning of the year.
- Each share unit awarded at the end of the performance year 0 represents a promise to issue a share in three years subject to vesting.
- Company able to fix expense at end of performance year 0/beginning of performance Year 1 at the same time as bonus payments
 - Expense to the company is determined based on the performance in Year 0.

Figure 12: Example B



Example C

Scenario:

- Established business.
- Able to set clear long-term goals.
- Directors wish to have specific performance goals (i.e., other than simply share price performance).
- Corporate tax deductibility is important.

Equity compensation plan to consider: Cash-settled PSU plan, whereby a target number of units are granted and subject to a performance modifier

- Value of payout = Target number of PSUs × 3-year performance factor × ending share price.
- Each period, the cost recognized is adjusted for changes in the expected outcome of the performance modifier and the fair value of the underlying share.
- The cumulative cost of the award is ultimately based on the outcome of the performance modifier and the value of the underlying share at the date of settlement (i.e., cost = cash payment at settlement).

Figure 13: Example C

Example C				
	Yr 1	→		Yr 3
	Award			Settlement
Target Award	\$100,000			
Share price	\$10.00			\$15.00
# PSUs	10,000			
Payout = Target Award × 3-yr Performance Factor				
Performance Scenario	3-yr Performance Factor	Settlement		Cumulative Accounting Cost*
		PSUs × price	Payout	
Scenario #1	0.25×	2,500 × \$15	\$37,500	\$37,500
Scenario #2	1.00×	10,000 × \$15	\$150,000	\$150,000
Scenario #3	2.00×	20,000 × \$15	\$300,000	\$300,000

*Cumulative cost = number of PSUs paying out × ending share price
 Fully taxable to employee at settlement
 Company receives a corporate tax deduction

APPENDIX B

Other Approaches to Long-Term Incentive Compensation

This section sets out other approaches to equity incentives (including alternatives to equity incentives) that are less common than those set out above. This is done for completeness and to acknowledge that some of the approaches may address a specific issue relevant for a particular company. These approaches are divided into three categories:

1. Stock option or option-like approaches
2. Full-value equity approaches
3. Non-equity-based long-term incentives

1.0 Stock Option or Option-Like Approaches

A traditional option is structured so that the participant is granted a right to buy the shares issued from treasury at a fixed price equal to the grant date price between vesting and expiry. This section examines other features or structures that could be considered.

1.1 Stock Options with Performance Conditions

Some companies place additional, forward-looking, performance conditions on stock options, which must be achieved in order for the stock options to vest—i.e., the options will vest in proportion to achievement of certain performance conditions.

A performance condition, other than a market condition, may be an intriguing approach for companies with very high option values and success that is dependent on significant milestones or breakthroughs. For instance, a biotech company may be a year or two from being fully operational—waiting both for patents to be approved and for manufacturing to be fully operational. A performance condition of, say, achieving an EBITDA target could be added to the option. The fair value at grant date would still be the pure option value (i.e., fair value of the option ignoring the performance condition); but, the recognition of compensation cost would consider the likelihood of the EBITDA target being achieved. If the target is ultimately not achieved, any compensation cost recognized for the option award would be reversed.

1.2 Capped Stock Options

A capped stock option places an upper limit on the possible value that an individual may receive from the exercise of their options. From a financial reporting standpoint, capped stock options can reduce the reported cost of stock options significantly.

Practically speaking, an individual would receive a grant of stock options, the realizable value of which on exercise is “capped.” Upon exercise, if the total in-the-money value based on the current share price and the exercise price of the option exceeds the cap, then the number of options exercisable will be reduced.

A capped stock option limits the value that an option holder can realize on their option. For instance, if a company issues a capped stock option at a \$25 exercise price with a capped option gain of \$25, the option holder can only participate in share price gains up to a share price of \$50 (i.e., \$25 + \$25). A capped stock option may remove the extreme payout scenarios that would otherwise significantly contribute to the grant date value and cost of options on volatile shares.

The illustration below shows how option values can be reduced through the use of a capped option at various levels of volatility.

Figure 14: Capped Stock Option Value Illustration

Capped Stock Option Value Illustration					
	Base	Ceiling			
Share Price (grant date)	\$25.00	\$25.00			
Exercise price	\$25.00	\$50.00			
Expected life	5 years	5 years			
Risk-free rate	2.0%	2.0%			
Volatility (%)	20%	40%	60%	80%	100%
Uncapped Option Value (\$)	\$5.49	\$9.45	\$13.06	\$16.18	\$18.73
% grant share price	22%	38%	52%	65%	75%
Reduction For Cap	\$0.63	\$4.32	\$8.74	\$12.84	\$16.31
Capped Option Value (\$)	\$4.86	\$5.13	\$4.32	\$3.33	\$2.43
% grant share price	19%	21%	17%	13%	10%

The table above shows the significant sensitivity of a capped stock option to the volatility assumption. The challenge here is that historically high levels of volatility may not be a good predictor of future volatility. It is important to note that the above table relies on one valuation methodology (Black-Scholes), and that other models may be more appropriate, depending on individual companies' circumstances. Care should be taken in choosing the valuation model and underlying assumptions.

The implications of these options should be carefully reviewed with professional advisors.

1.3 Stock Appreciation Rights (SARs) or Cash-Settled Option

It is possible to add a cash settlement approach to the options, whereby the gain is settled as a cash payment, removing the process of requiring the purchase of shares from treasury. This can be done in one of two ways:

- A tandem SAR, whereby the option holder has the right to receive a cash payment equal to the option gain or exercise the option in the normal manner.
- A stand-alone SAR, whereby there is no underlying stock option, but rather a bonus is structured to pay for the increase in the share price via a cash payment.

While there are numerous accounting and tax implications relating to the precise structure, the goal would be to align the option aggregate cost with the option holders' actual in-the-money experience. If the share price does not ultimately go up and the SARs are settled, then the option expense would ultimately be nil. The flip side is that the company would have to be able to pay for this liability, if the share price goes up, with cash.

2.0 Full-Value Equity Approaches

Under the Full-Value Equity section earlier in this document, a number of approaches were set out. The purpose of this section is to set out some additional variations for completeness. To this end, three approaches are set out.

2.1 Long-Term Share Units with Cash Settlement Features

The example on page 21 sets out a longer-term equity arrangement that is settled in treasury shares. It is possible to structure the approach with a cash settlement alternative. In much the same way as a cash settlement feature can be linked to a stock option (Tandem SAR), it can be linked to a treasury-settled full-value equity plan. Effectively, the participant has the ability to choose to have settlement in cash instead of settling with treasury shares.

This cash settlement feature is beneficial for companies that want both the ability to grant shares beyond three years and the desire to make the payment tax deductible for the corporation where the employees elect to receive cash. The trade-off is that the plan would need to be accounted for as a liability structure (cumulative expense equals cumulative payouts).

2.2 After-Tax Shares with Selling Restrictions

Most equity compensation plans are structured to ensure that taxes are not payable by participants until amounts are settled. However, it is possible to provide taxable shares—that is, to have participants pay the tax at the grant date, rather than at the settlement date. While most participants would rather have taxes deferred until settlement,

certain features can be added that can make this structure appealing. In particular, if a selling restriction is added in that the shares cannot be sold for a period of time, say seven years, the taxable fair value may be reduced (i.e., the taxable fair value is less than the market value of the underlying shares).

Example:

- Participant receives \$100,000 in shares that cannot be sold for 7 years.
- Valuator determines the taxable fair value, given the selling restriction, is \$80,000 (not the \$100,000 market value).
- Participant funds taxes in the order of \$36,000 (i.e., assuming tax rate of 45% on \$80,000) to have \$100,000 of real ownership that is subsequently taxed as capital gains and dividend income.

There are numerous structural, tax and accounting issues that need to be addressed in designing these types of programs.

2.3 Share Loan Plan

Providing shares funded through loans or deferred payments can be an effective way to get real ownership into participants' hands. We note this is largely out of favour and is banned for many public companies by relevant securities legislation or company policies. This approach is nonetheless used in many private equity situations and can be an effective way to achieve real ownership. It can be quite appealing in situations where it is ideal to have significant ownership upfront, yet paid for over time. It can also be appealing in environments where the shares tend to be low-risk investments and high-yield securities—where the yield can be used to help pay back the debt.

It should be noted that there are tax issues that need to be addressed when structuring the loan to avoid the accelerated taxation of the shareholder/debtor. There are also numerous accounting issues, beyond the scope of this publication, that need to be considered in accounting for the loans to purchase shares.

3.0 Non-Equity-Based Long-Term Incentives — Cash Programs

While the focus of the document is to set out equity compensation alternatives, it is important to note that there are other long-term incentive alternatives available.

Multi-year performance and/or deferral features can be linked to cash amounts that are delinked from share price or value. For instance, a company could have a bonus plan with a three-year performance period, with specific dollar payouts linked to various levels of performance. A company could also defer annual bonuses into cash deferral settlements.

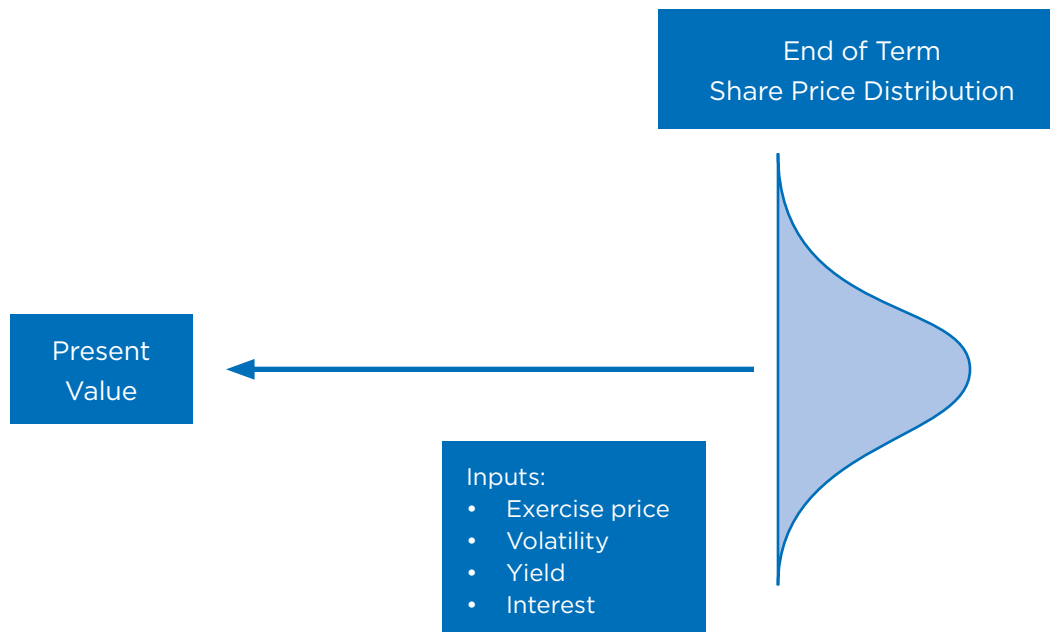
APPENDIX C

Stock Option Valuation

Traditional Option Valuation Models

One of the things that make these models confusing is that the calculation is not the present value of a single forecasted gain; but rather, is derived from the amounts and timing of all of the possible payoffs to the option holder.

Figure 15: Traditional Option Valuation Models









The Black-Scholes model assumes that option holders cannot exercise options until the end of the term (European option). As is illustrated above, there is a continuous probability distribution at the end of the term. This is a reasonable assumption in many situations.

The binomial (Cox-Ross-Rubinstein) option value model allows for early exercises, which better values options on high-dividend shares. If the spread is significant and/or dividends are high relative to interest rates (loan value on exercise cost), then the value is lost if the option holder is forced to hold on to the options until the end of the term.

The table below discusses how the factors and inputs to option valuation models influence the option value.

Table 5: Option Valuation Factors

Factor	Movement of Factor	Influence on Option Value	Notes
Market price	↑	↑	Assume market = exercise price: <ul style="list-style-type: none"> • Expected return on a \$50 share price (or options on \$500,000 of shares) is higher than that of a \$5 share price (or options on \$50,000 of shares) • Can be viewed as counter-intuitive when considering short-term price movements
Market spread above exercise (cost)	↑	↑	Market minus exercise price: <ul style="list-style-type: none"> • Greater the spread of the market price above the exercise price, the greater the value of an option <ul style="list-style-type: none"> – Also known as “intrinsic value” – May be important for liability structured options (SARs) – Option value = Intrinsic Value + Time Value <ul style="list-style-type: none"> » Option value increases with spread » But time value component decreases with spread
Option term	↑	↑	Term to expiry: <ul style="list-style-type: none"> • The longer the option term, the more valuable the option • Accounting may substitute “expected life” for term

Factor	Movement of Factor	Influence on Option Value	Notes
Interest rate			<p>Risk-free rate:</p> <ul style="list-style-type: none"> • An option has an interest-free loan component • Do not have to pay for shares until later (and price is fixed) • The greater the interest rate, the greater the option value
Dividend yield			<ul style="list-style-type: none"> • The higher the dividend yield, the lower the option value • Shares are priced by the market place to provide a (risk-adjusted) expected total shareholder return (price increase + dividend) <ul style="list-style-type: none"> – The greater the dividend portion, the less the expected share price increase • Note: an announced increase in dividend amount may be positive for the share price (releasing value or indicating confidence in earnings)
Volatility			<ul style="list-style-type: none"> • The higher the volatility (standard deviation of total shareholder return), the higher the option value • Shares are priced by the market place to provide a greater expected total shareholder return for riskier investments <ul style="list-style-type: none"> – Volatility is a measure of risk (like beta) – Shareholders balance the possibility of a significant return with the possibility of a significant loss – Option holders participate in the upside, the wider the distribution of future possible share prices, the more valuable the option • Once an option has a significant spread, option position has downside risk (high volatility may encourage earlier exercise)

Volatility

Volatility stands out as the most problematic input for many small and mid-sized companies. While most inputs are directly observable, estimating future volatility is not. Furthermore, historical volatility may be extremely high which leads to extremely high option values (note Figure 4 on page 14).

The challenge for valuing and accounting for stock options on highly volatile shares lies in the portion of value associated at the tail of the distribution – i.e., the possibility of a high payout from the volatility. The end result being that a material portion of the option value is derived from a small likelihood of a very large payout.

Beyond Black-Scholes and Binomial (Cox-Ross-Rubinstein)

Black-Scholes does not recognize various unique characteristics, including the impact of:

- Employee turnover
- Employee exercise behaviour
- Exercise restrictions
- Performance criteria

The initial accounting response: use “expected life” rather than the full option term

- Example:
 - Contractual term: 10 years
 - Expected Life: 6 years (put into model)

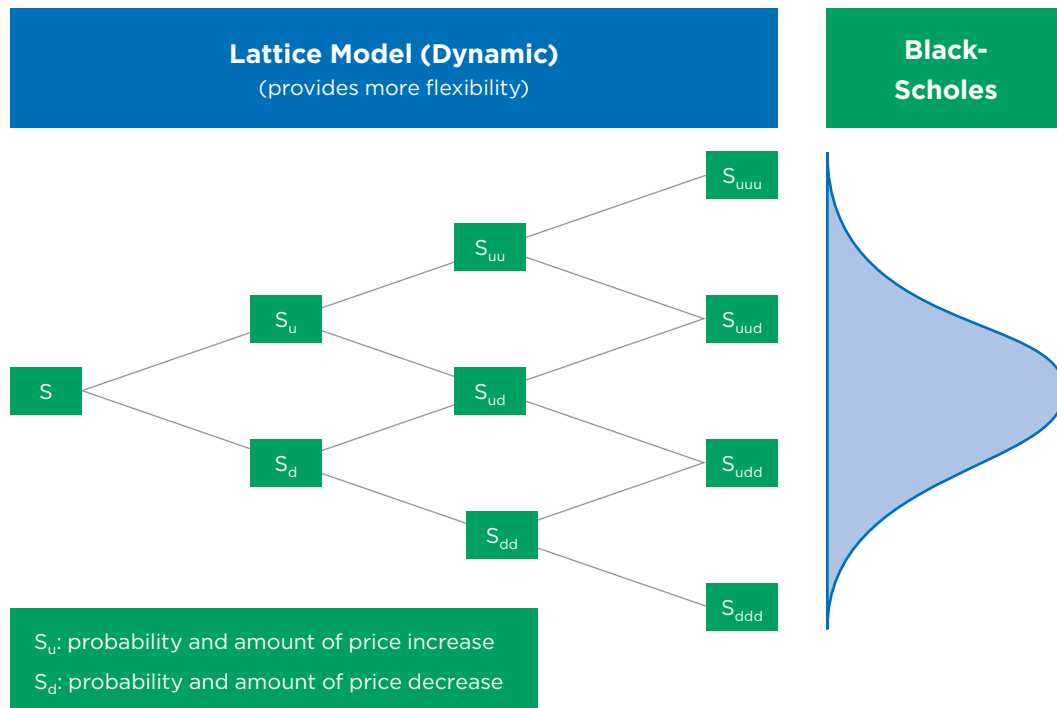
New Option Valuation Models

New models exist to try to address some of the shortcomings of the traditional option valuation models specifically, that expected life is really an output, not an input.

Monte Carlo and/or more dynamic Lattice models are open-ended models that incorporate:

- Employee exercise behaviour (e.g., options exercised if price doubles)
- Dynamic assumptions
 - e.g., volatility and dividends change over time
 - e.g., exercise behaviour changes over the option term

Figure 16: New Option Valuation Models



Even here, challenges remain that highly volatile stocks will result in fair value calculations that are very high—unless there is an objective way found to incorporate exercise behaviour.



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