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THROUGH IDEAS AND  
INSIGHT

# SHARE-BASED PAYMENT SCHEMES

Understanding options and performance rights

Key accounting and business considerations



Share-based payments hit the income statement. In order to avoid unwanted surprises it is crucial to know in advance the key aspects of AASB 2 and the likely income statement impact when planning a share-based payment plan.

## WHAT ARE THE MAIN ACCOUNTING AND BUSINESS CONSIDERATIONS?

Under AASB 2, costs related to share-based payments have to be charged to the income statement. As a result, share-based payments can have a significant impact on results.

Because it requires the use of complex valuation models, AASB 2 is far from easy to apply and understand. It is likely that many companies will need to engage external experts to measure and account for their share-based payments.

Before developing a share-based payment plan, you should be aware of some of its main features. When you understand these features more comprehensively, your management will have a better understanding of income statement consequences. This can significantly reduce the impact of complex, time-consuming and costly accounting requirements in your organisation.

### Understand the key points with our guide

This short guide is a "how-to" guide of the key points you need to keep in mind when setting up your share-based payment plans.

RSM has a wealth of experience in assisting in employee share schemes including:

- Assisting in the initial design
- Advising on the tax implication to employees of employee share scheme issues
- The valuation of options and performance rights for reporting purposes
- The accounting implications of employee share schemes

### Find out more

To discuss any of the above, or points raised in this guide, get in touch with RSM.

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# UNDERSTANDING THE COMPONENTS OF THE VALUE OF OPTIONS AND PERFORMANCE RIGHTS

## The importance of time value

Time value is a component of the fair value which you cannot ignore.

The fair value of an option is made up of two components: intrinsic value and time value.

Although the intrinsic value can often represent the major component, time value can be very significant as well.

A failure to consider the time value could result in you missing out on a significant part of the value of the option or even the entire value of the option when they are issued at the money (i.e. when the current share price is at or above the option exercise price).

Time value can only be captured by applying a valuation model.



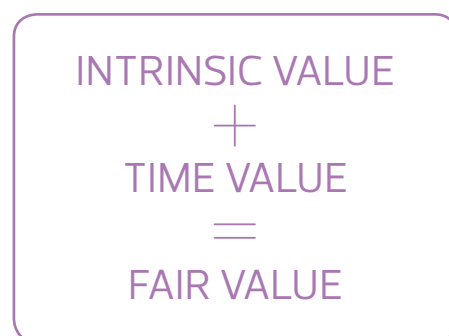
Time value forms part of the total value to be charged to the income statement. High volatility and length to expiry increase the time value and, therefore, the total charge to the income statement.

## Using valuation models

The time value can be calculated only by adopting appropriate valuation models. The complexity of the valuation model varies depending on the share-based payment characteristics. In cases where in-house expertise is not available, it could be necessary to request the advice of an external expert.

## Both volatility and the time to expiration affect the time value.

The higher the volatility of the underlying instrument and the time to expiration of the option, the higher the time value of the option. A high volatility and a lengthy time to expiration are always advantageous for the option holder.



## WHAT ARE THE KEY DATES OF A SHARE-BASED PAYMENT SCHEME?

### How your Income Statement is hit over the vesting period

The costs associated with any share-based payment transactions are always charged to the income statement over the vesting period. Normally the vesting period runs from the grant date to the vesting date. However, this is not a definitive rule. If the vesting date coincides with the grant date, expenses are charged to your income statement immediately.

### Variability in some of the terms of the share scheme, depending on market conditions could result in the need for a more complex valuation model

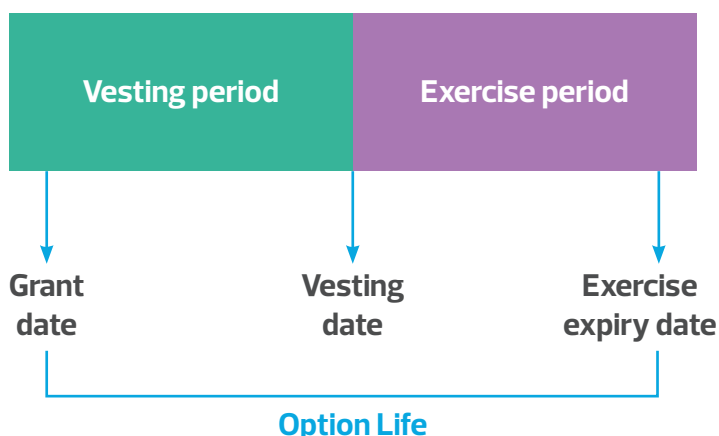
The share-based payment transaction can be set up so that the grant date, number of awards, vesting date and exercise period etc., are variable and depend on stated market conditions. This arrangement must be incorporated into your valuation model of choice. This means you will have a more complex valuation model to manage.

### How to assess the P&L impact of a longer time to expiration

As mentioned above, the longer the time to expiration of an option, the higher the total time value to be charged to the income statement. The option life can be extended, expanding the vesting period or the exercise period after the vesting date.

As a rule of thumb, by extending the vesting period, the period-to-period charge should dilute. However, the incremental time value deriving from the extension could offset such dilution.

On the other hand, extending the exercise period should always result in an increase of the cumulative cost to be charged over the entire vesting period. The actual impact of the option life extension on a period-to-period income statement charge must be assessed on a case-by-case basis.





## MARKET AND NON-MARKET VESTING CONDITIONS (THE TRUE UP MODEL)

### Understanding the basics of vesting conditions

Usually, once a share-based payment transaction is set up, payments are subject to the achievement of certain vesting conditions. These conditions can affect aspects such as the timing and amount of payments or any other characteristic of the rights granted.

### The two type of vesting conditions:

- 1. Service conditions:**  
Require the other party to complete a specified period of service.
- 2. Performance conditions:**  
Specified performance targets need to be met (such as a specific increase in the entity's profit over a specified period of time).

### The two types of performance conditions

In turn, performance conditions fall into two different classes: market conditions and non-market conditions.

- 1. Market conditions:**  
A condition upon which the exercise price, vesting or exercisability of an equity instrument depends that is related to the market price of the entity's equity instruments, such as attaining a specified share price or a specified amount of intrinsic value of a share option, or achieving a specified target that is based on the market price of the entity's equity instruments relative to an index of market prices of equity instruments of other entities.
- 2. Non-market conditions:**  
Non-market conditions are all those remaining conditions which do not fall into the above category.



Remember that all market conditions must be incorporated into your valuation model to determine the grant date fair value. For equity-settled stock options, no revisions are allowed after the grant date.

### VESTING CONDITIONS

Service conditions

VS

Performance conditions



**Market  
conditions**



**Non-market  
conditions**

### Calculating fair value at the grant date

The critical difference between market and non-market conditions is how they affect the calculation of fair value at the grant date:

- Market conditions have to be taken into account in determining the fair value based on a valuation model of the share-based payments at grant date.
- Non-market conditions are not taken into account in determining the fair value based on a valuation model of the share-based payments at grant date. Non-market conditions are instead taken into account through how the fair value is recognised in the income statement. At each reporting date the probability of non-market conditions being met are assessed and the cumulative expense is adjusted to reflect changes in the probability of non-market conditions being met. This can result in credits to the income statement to reverse expenses from prior periods.



Share-based payment costs must be charged to the income statement over the vesting period. A share-based payment transaction with variable "key dates" is more complex and onerous to manage.

**The fair value of the share-based payment is a function of two elements:**

- the fair value of the valuation model; combined with
- the estimated impact of non-market conditions.

**The characteristics of performance conditions**

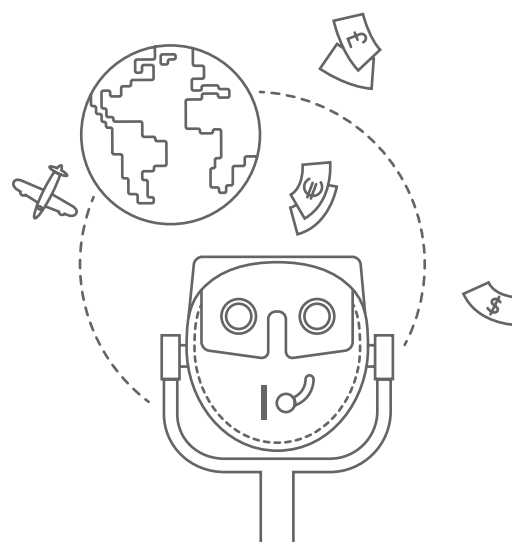
The characteristic of a performance condition that has to be included or not in a valuation model has the following consequences, depending on the type of share-based payment plan you apply:

- Equity-settled: market conditions are no longer considered for subsequent measurement of the fair value based on a valuation model. However, non-market conditions are revised from the beginning to estimate awards that will eventually vest (i.e. the true up).
- Cash-settled: the revision of both market and non-market conditions is undertaken at each reporting date to update the fair value of the instrument granted.

Examples of non-market vesting conditions	Examples of market vesting conditions
The employee has to work for the entity for a certain period before being entitled to exercise the stock options.	The value of a listed share has to reach a certain level.
The entity has to reach a certain level of sales, operating profit, EBTDA, etc.	The value of a listed share has to reach a certain value compared to a stock index or other industry-specific stock indexes
The management has to open a certain number of new stores, branches, subsidiaries etc. by a certain date.	The TSR (Total Shareholder Return) reaches a certain level.



When setting up a share-based payment transaction, it is crucial to distinguish between market and non-market conditions as well as to understand their impact on the valuation model to be applied. This directly affects how the income statement will be charged.







Subsequent modifications, replacements and cancellations of granted equity instruments cannot reduce the original grant date fair value.



## BE CAREFUL WITH MODIFICATIONS, REPLACEMENTS, SETTLEMENTS AND CANCELLATIONS OF GRANTED OPTIONS AND PERFORMANCE RIGHTS

There are two key areas where you'll have to be careful in making changes. The considerations include:

- 1. Subsequent modifications cannot reduce the original income statement charge**  
In cases where equity instruments are subsequently modified in a way that the fair value of the original equity instrument at the modification date is higher than the fair value of the modified equity instrument at the same date, as a minimum the fair value of the original equity instrument has to be recognised. To put another way, only the beneficial modifications have to be recognised. All non-beneficial modifications are ignored.
- 2. Any cancellations are considered vesting accelerating events**  
The cancellation of an equity-settled share-based payment is treated similarly to modification arrangements.

The bottom line is the entity has to recognise immediately the amount that would otherwise have been recognised for services received over the remainder of the vesting period.

## NEWLY LISTED AND UNLISTED ENTITIES – COMPLICATIONS IN ESTIMATING VOLATILITY

### What is the valuation model for newly listed and unlisted companies?

In virtually all cases, it should be possible to apply a valuation model for these companies, despite the lack of a readily available volatility and share price.

This does involve further analysis, research and valuation to obtain the necessary information to apply the valuation model.

### You need to take care to ensure that:

- The share price valuation applied in the valuation model is representative of the rights attached to the underlying shares including the applicable minority discounts and discounts for lack of marketability; and
- When using comparable listed company analysis to determine volatility, that the differences between the listed companies and the subject company are adequately reflected



Even though volatility is not readily available in respect of stock option schemes for non-listed or newly listed entities, as a rule of thumb, these should be evaluated when adopting a valuation model. This could result in more complex and onerous administrative burdens when setting up the valuation model for non-listed or newly listed entities.

## SHARE-BASED PAYMENT VALUATION MODELS

### The Black–Scholes model

The Black–Scholes model is probably the most widely used and best-known theoretical option-valuation model.

The Black–Scholes model is used to value vanilla European options (i.e. those that can only be exercised at the expiry date) or performance rights using the following key variables:

- the current spot price of a stock
- the exercise price of the option
- the expected volatility of the stock
- time to expiration
- the risk free interest rate

### The Binomial model (also known as the lattice model)

A more integrated and complex model used to value options or performance rights is called the lattice model. This model is a theoretical model like the Black–Scholes model; however, it uses either a binomial or a trinomial distribution process to derive value by separating the total maturity period of the option into discrete periods.

When progressing from one time period, or node, to another, the underlying common stock price is assumed to have an equal probability of increasing and/or decreasing by upward and downward price movements.

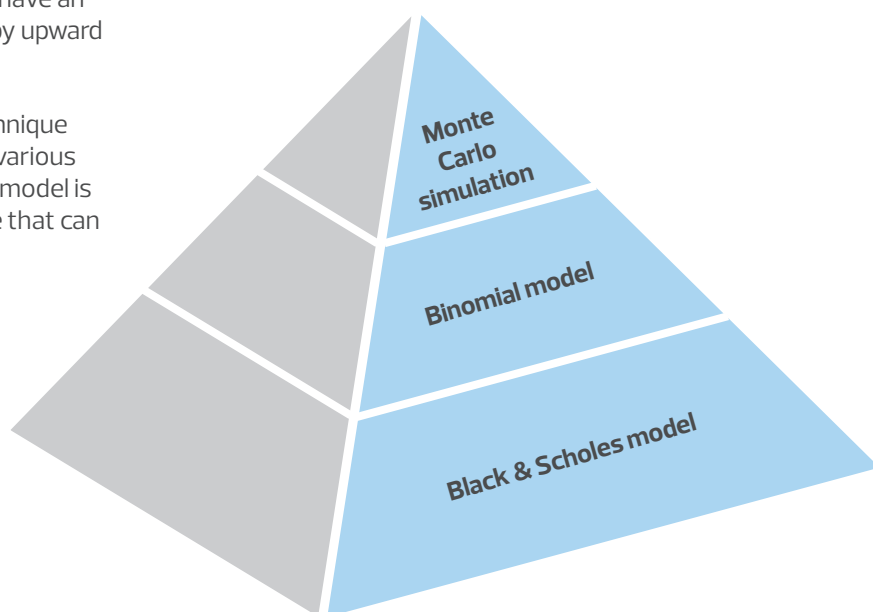
The binomial model is a more flexible valuation technique that can account for early exercise behaviour and various market and performance conditions. The binomial model is typically used to value American options (i.e. those that can be exercised at any point between vesting and the expiry date).

### Monte Carlo Simulation

Monte Carlo simulation methods are often used to value complex options or performance rights by simulating various path-dependent conditions. This approach simulates share price movements using assumptions of lognormally distributed prices, averages the payoff values over the range of resultant outcomes, and then discounts the expected payoff at the risk-free rate to get an estimate of the value of the option.

#### What are the advantages of using the Monte Carlo approach? Two key ways:

- The advantage of a Monte Carlo simulation is that it can be used when the payoff depends on the path followed by the underlying common stock value as well as when it depends only on the final value of common stock. Payoffs can occur at several times during the life of the derivative rather than all at the end.
- Monte Carlo simulations are also utilised when the vesting conditions are dependent on the share price or total shareholder return of the issuer compared to the share price or total shareholder return of other companies or share price indexes.





## WHAT ARE THE EMPLOYEE'S VIEWS OF SHARE-BASED PAYMENTS?

### Understanding employee perceptions of the fair value

The value of an employee stock option plan charged to the income statement could result from complex formulas, which attempt to capture all measurable variables. However, this value might not be completely understood by employees or perceived differently.

This means that the employee might not recognise as "remuneration" a portion of the cost which nevertheless has hit the income statement. For instance, the holder could perceive the intrinsic value but not the value associated with an exercise period of five years instead of two years.

This becomes a challenge when explaining the components of value of a share-based payment to your employees. The ultimate payoff from a share-based payment is unlikely to ever match the fair value recognised under AASB 2.

### How to motivate your employees

It is important to remember that one of the major goals when choosing the right length of a share-based payment option should be to cultivate desired employee behaviours.

For instance, for fast-growing start-up companies, share-based payments could be an attractive way to motivate employees to achieve their KPIs without directly affecting the company's cash-flows.

In today's highly competitive economic environment, retaining talent is one of the key factors that determines the success of any company. In this respect, share-based payments with a longer vesting period can help inspire loyalty in your team. On the other hand, a very long vesting period might not be recommended in cases where the company needs short-term results and wishes to leverage the motivational factor.

In summary, share-based payments can be a good tool to help motivate your personnel to achieve the company's key strategic goals. Therefore share-based payment schemes must be designed to take the overall strategic corporate picture into consideration.

## SHARE-BASED PAYMENT VALUATION MODELS

In general, whichever valuation model is chosen, as a minimum, the following six factors should be taken into consideration:

### Six factors to keep in mind and understand

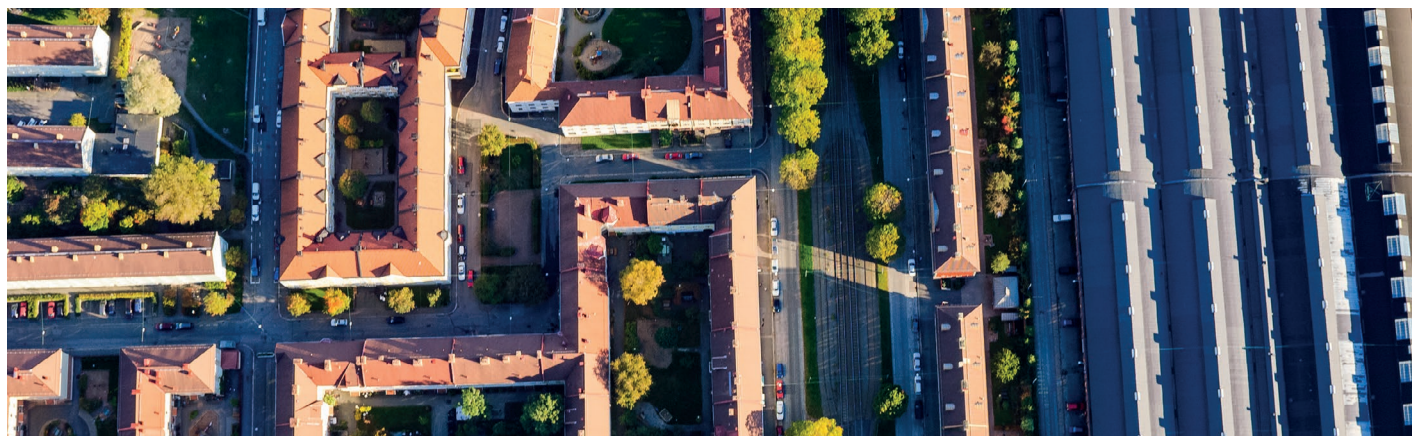
1. The exercise price of the option
2. The life of the option
3. The current price of the underlying shares
4. The expected volatility of the share price
5. The dividends expected on the shares (if appropriate)
6. The risk-free interest rate for the life of the option

However, these are not the only factors to consider. Your valuation model should also be tailored to consider market conditions characterising the option, the expected behaviour of option holders, exercise restrictions in specified periods, non-transferable features that could trigger early exercise, etc.

### Final thoughts – Putting it altogether











In conclusion, the brief and non-exhaustive considerations outlined above are aimed help you understand the complexity surrounding the determination of the fair value of share-based payments. All financial statement preparers should be aware that option valuation models are likely to require the use of experts to be managed properly. As a general rule, their complexity and cost of implementation are the results of the complexity of the share-based payment itself. In other words, the valuation model complexity and burden can be minimised provided experts in valuation models are involved in the design of the share-based payments from the beginning.

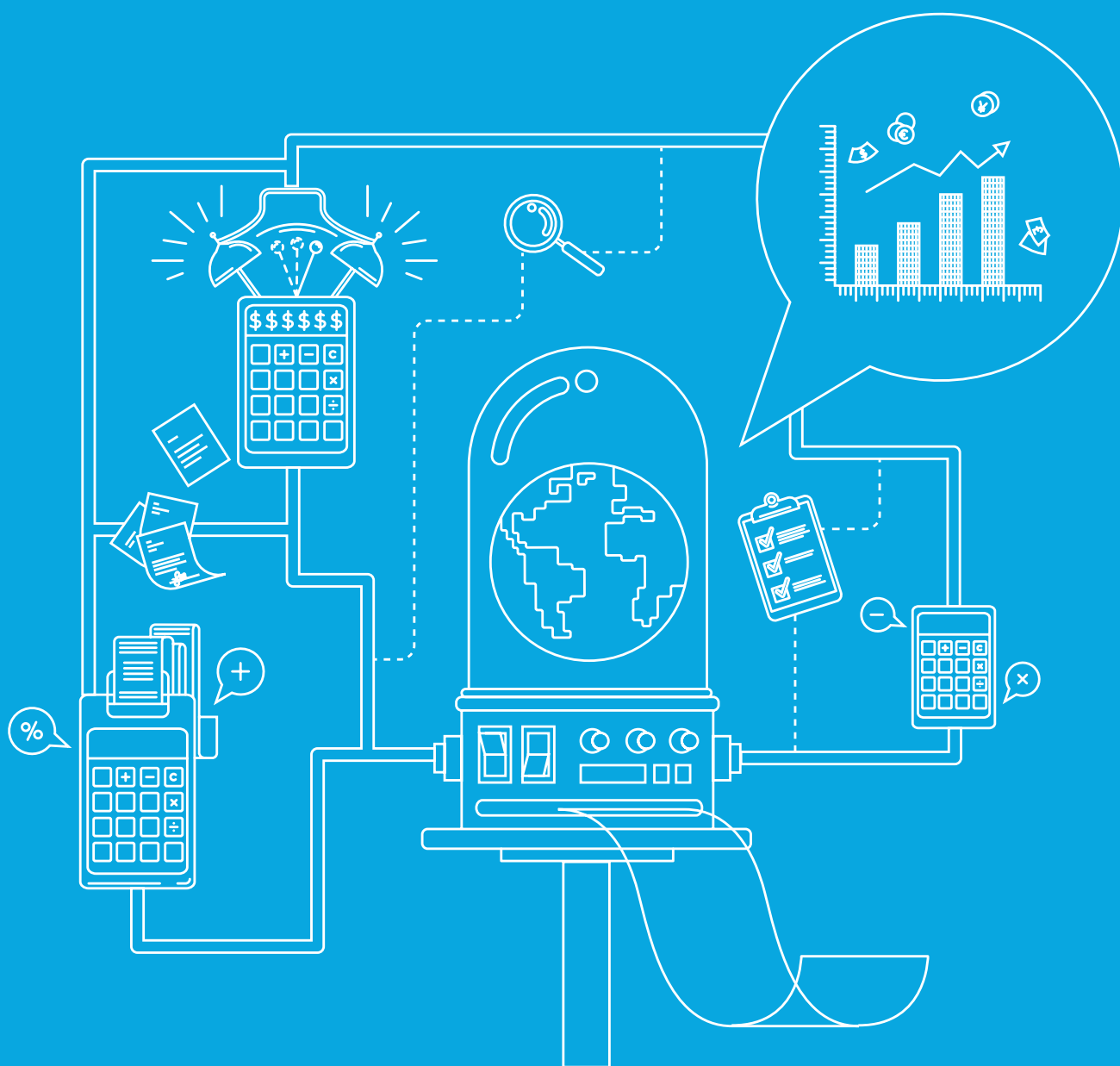
Share-based payment transaction can be designed to combine a considerable number of characteristics. The table in the following page shows the key points of the most common features and describes their impact on the fair value as well as the complexity of the valuation model to be adopted.



## CHEAT SHEET

# 10 shortcuts to understanding share-based schemes and performance rights

Features and variable	Does it increase the complexity of the valuation model?	Does it increase the fair value?
1  Variable exercise price	Yes	Depends on the circumstances
2  Variable number of equity awards	Yes	Depends on the circumstances
3  Variable vesting periods subject to conditions other than the share price	Yes	Depends on the circumstances
4  Multiple market conditions	Yes	No
5  Long exercise period	Yes	Yes
6  America-Bermudan options	Yes	Yes
7  Reload features	Yes	Yes
8  Expected dividends	Yes	No
9  Multiple behavioural considerations	Yes	Depends on the circumstances
10  Contact RSM to talk to your local expert		



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