



Staff Paper

Project

Emissions Trading Schemes

Topic

**Initial and subsequent measurement of allowances (assets)
and the liability for the allocation (cap and trade scheme)**

Introduction

1. The objective of this paper is to address the initial and subsequent measurement of the purchased and allocated allowances (the assets) and the liability for the allocation in a cap and trade scheme.

Summary of staff recommendations

2. The liability for the allocation should be measured based upon the expected number (quantity) of allowances to be returned (paragraphs 8-11). Given this, the staff recommend the following:
 - a. Purchased and allocated allowances, and the liability for the allocation should be measured using the fair value with remeasurement model (**Model 1 (i)**).
 - b. The measurement of the quantity of the allowances to be returned (the liability for the allocation) should be measured using the expected return approach. This approach requires an entity to calculate the number of allowances it expects to return based upon the probability-weighted average of a reasonable number of possible outcomes.

Structure of the paper

3. The structure of the paper is as follows:

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The views expressed in this paper are those of the staff preparing the paper. They do not purport to represent the views of any individual members of the FASB or the IASB.

Comments made in relation to the application of IFRSs or U.S. GAAP do not purport to be acceptable or unacceptable application of IFRSs or U.S. GAAP.

The tentative decisions made by the FASB or the IASB at public meetings are reported in FASB *Action Alert* or in IASB *Update*. Official pronouncements of the FASB or the IASB are published only after each board has completed its full due process, including appropriate public consultation and formal voting procedures.

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- a. Part A - analysis of the measurement of the liability for the allocation
 - b. Part B - analysis of the possible accounting models to address the *initial and subsequent measurement* of the allowances. The measurement model for the allowances will be one of the inputs used in measuring the liability for the allocation. Those possible models are as follows:
 - i. Model 1 – Fair value at initial measurement
 1. Model 1(i) Fair value subsequent measurement
 2. Model 1(ii) No subsequent remeasurement at fair value, test assets for impairment
 - ii. Model 2 – Price paid with no remeasurement, test assets for impairment
 - iii. Model 3 – Business approach
 - c. Part C - analysis of how to determine the quantity of allowances expected to be returned (the liability for the allocation)
 - i. Expected outcome approach
 - ii. Derecognition approach
4. This paper does not discuss the interaction of an entity's actual emissions with the liability for the allocation, nor does it discuss an entity's emission liabilities¹. These issues are discussed in IASB Agenda Paper 5B/FASB Agenda Paper 7B. In addition, this paper does not address the issue of whether the reporting entity should be permitted or required to present the purchased and

¹ IASB Agenda Paper 5B/FASB Agenda Paper 7B explains that an entity's emission liability (described in that paper as a 'liability for excess emissions') will be initially and subsequently measured at the fair value of the allowances to be returned. Thus the measurement of the emissions liability is consistent with the staff recommendation in paragraph 39 of this paper to initially and subsequently measure the allowances at fair value (fair value with remeasurement model). Importantly, applying the same measurement principles to both the emission liability and the allowances will eliminate the risk of measurement mismatch.

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allocated allowances and the related liabilities on a net basis². This issue will be discussed at a future board meeting.

5. Importantly, the staff believe that the measurement principles in this paper will be applied to allowances that may be held by entities subject to an emissions trading scheme (which may be a voluntary or statutory scheme), and entities that may otherwise hold or trade allowances.

Prior board decisions

6. At the September 2010 joint board meeting, the FASB and the IASB tentatively decided that:
 - a. purchased and allocated allowances should be recognised as assets, and
 - b. a liability exists when the allowances are allocated (the liability for the allocation), because the definition of a liability is met.
7. At its March 2009 meeting, the IASB tentatively decided that an entity should initially measure allowances at fair value. The IASB also tentatively decided the liability should be initially measured at the fair value of the allowances. The FASB discussed these issues at its April 2009 meeting, however no decisions were made.

Part A - Analysis of the measurement of the liability for the allocation

8. At the September 2010 joint meeting, the boards tentatively decided that a liability exists for the allocation of allowances (the liability for the allocation). The boards requested that the staff refine the description of the nature of the obligation. The discussion below is not intended to revisit the analysis of the existence of a liability, but rather refine the description of the obligation to motivate the discussion of measurement of the liability for the allocation.
9. Three views were described in the September 2010 IASB agenda paper 10B/FASB Agenda paper 6B describing the nature of the obligation. Only two of those views received significant support. Upon further consideration of those two views, the

² A description of this issue was included in paragraphs 13-14 in the September 2010 IASB agenda paper 10C/FASB agenda paper 6C.

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staff agrees that under both views, if an entity is allocated allowances, the entity must do *something* (ie it has an obligation). That *something* determines whether the entity can keep the allowances or must return them. Therefore, the staff believes that upon the allocation of allowances, the entity has an obligation to return the allowances if it does not reduce emissions below the level of the allocated allowances.

10. Given that description of the obligation, the *allocation* of allowances represents the quantity of the allowances that must be returned, if the entity does not reduce its emissions. Therefore, the entity should initially and subsequently measure this obligation at the value of allowances that must be returned, until it expects to achieve a reduction in emissions.
11. To determine the initial and subsequent measurement of the liability for the allocation, an entity multiplies the quantity of allowances it must return by the price of the allocated allowances. The price of the allocated allowances is used as one of the inputs to measure the liability for the allocation because a relationship exists between the initial and subsequent measurement of the allocated allowances and the liability for the allocation. As described in the September 2010 IASB agenda paper 10B/FASB Agenda paper 6B, the allocation of allowances creates a liability for the allocation. Furthermore, the allowances can be considered to be a form of currency, that can be used to ‘settle’ the liability for the allocation, and any other emission liabilities³ that may arise from participation in the emissions trading scheme.

Part B - Analysis of the possible accounting models for initial and subsequent measurement of the allowances

12. Initial recognition of assets acquired and liabilities incurred generally involves measurement based on current exchange prices at the date of recognition.
Depending on the accounting model adopted, the measurement of these assets and

³ The liability for excess emissions is discussed in IASB Agenda Paper 5B/FASB Agenda Paper 7B.

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liabilities may change subsequently, if the value of the underlying element changes.

13. Given the relationship between the allocated allowances and the liability for the allocation, the price of the allocated allowances should also be used in measuring the liability for the allocated allowances. Thus the liability for the allocation is measured consistently with the allocated allowance to which it is related. Measuring the asset and liability consistently (both initially and subsequently) was proposed in the exposure draft *Leases*. Initially, lessees measure ‘the right-of-use asset’ at the amount of the liability to make lease payments⁴, and subsequently the ‘right-of-use asset’ may be adjusted for specific changes in the liability⁵.
14. The possible accounting models for the initial and subsequent measurement of the allowances are as follows:
 - a. Model 1 – Fair value at initial measurement
 - i. Model 1(i) Fair value subsequent measurement
 - ii. Model 1(ii) No subsequent remeasurement at fair value, test assets for impairment
 - b. Model 2 – Price paid with no remeasurement, test assets for impairment
 - c. Model 3 – Business approach

Staff Analysis

Model 1 (i) - Fair value with remeasurement

15. Model 1 with remeasurement⁶ requires measurement of purchased and allocated allowances at fair value initially and subsequently at each reporting date.
16. The fair value of each allowance should be determined using the measurement principles in ASC Topic 820 *Fair Value* and the IASB May 2009 Exposure Draft

⁴ Paragraph 12(b) of exposure draft *Leases*.

⁵ Paragraph 17 (a) and 18(b) of exposure draft *Leases*.

⁶ Remeasurement in this section refers to the change in fair value due to the price change in the assets experienced in the active market.

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*Fair Value Measurement*⁷. Markets exist for allowances and thus a reliable estimate of fair value is available for the asset.

17. This model also proposes that the fair value of the allocated allowances (with remeasurement) would be one of the inputs used⁸ to measure the liability for the allocation. Because active markets do not exist to transfer the liability for the allocation, the staff have developed a reasonable alternative to determine the value of the liability for the allocation. The value an entity would rationally pay to be relieved of the obligation is the current price of allowances multiplied by the quantity of allowances that an entity expects will be required to settle the obligation. Consequently, the staff believe that the current price observed in the market for an allowance is representative of the fair value of the liability for the allocation.
18. Gains and losses incurred on the remeasurement of the asset and the liability for the allocation will be recognised in earnings (profit or loss). The staff observe that if the number of allowances on hand exceeds or is less than the quantity of allowances to be returned⁹ for the liability for the allocation (or other emission liabilities under the scheme) an entity may experience volatility in earnings as the price of allowances fluctuates.

*Pros and Cons of Model 1(i) with **remeasurement***

19. Proponents of this model assert that fair value is the most relevant measurement attribute because the allowances are tradable. Furthermore, the fair value of the allowances provides the market's assessment of future cash flows and the risks of those cash flows. This information is relevant for users. Reflecting the allowances

⁷ Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The staff's understanding is that for most emissions trading schemes in existence, markets are active enough to provide reliable information for entities to make estimates of fair value.

⁸ This section discusses the measurement of the allowances that will be used in measuring the liability for the allocation. The other element of measuring the liability for the allocation is the quantity of allowances to be returned. This is discussed in Part C.

⁹ The liability of the allocation will be measured in relation to the quantity of allowances to be returned. This is discussed in Part C.

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and the liability for the allocation at fair value would faithfully represent the substance of the underlying transaction. Therefore, some believe measuring allowances at fair value provides more decision-useful financial information than the price paid for allocated allowances (ie nil).

20. Proponents further argue that changes in fair value of the assets (ie purchased and allocated allowances) from period to period should be reflected in the financial statements at each reporting date. They believe that because entities are permitted to sell and trade allowances in the markets that have developed, the financial statements should reflect the price that would be received should the entity decide to trade (ie fair value). This information is relevant for both entities that are subject to an emissions trading scheme, and those who simply hold or trade allowances. For those that are subject to an emissions trading scheme and have received an allocation of allowances, if the allowances are remeasured to fair value each reporting period, the liability should also be remeasured given the relationship that exists between the allocated allowances and the liability for the allocation (paragraph 11) and for the reasons outlined in paragraph 17.
21. Opponents argue that fair value with remeasurement adds complexity, volatility and undue cost to the accounting for those allocated allowances that will usually be returned to the scheme administrator at the end of the compliance period. Proponents of fair value with no remeasurement are opponents of fair value with remeasurement.

*Model 1 (ii) – Fair value with **no remeasurement***

22. This model differs from model 1(i) described above because it does not require remeasurement. Therefore, this model will require purchased and allocated allowances to be initially measured at fair value with no remeasurement for price changes experienced in the active market for allowances at each reporting date.
23. Importantly, this model does not result in gains and losses being recognised in the income statement for price changes in the allowances.

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24. However, this model would require an impairment model for the assets. The staff believe that the impairment test will be complex. As a result, the staff proposes to bring this issue back to the boards if this model is chosen. For example, there are a number of criterion that would need to be considered in an impairment test including (but not limited to): the price of the allowance in existing market, the entity's ability to use the allowance to settle emission liabilities (ie the value in use), and determining whether allowances should be classified as trading, available-for-sale, or held to maturity¹⁰. The staff observe that guidance for impairment testing of assets exist in both IFRS and US GAAP¹¹. If the staff were to bring this issue back to the boards, the staff will consider how this guidance should be applied to the impairment test for emission allowances.
25. Since there is no remeasurement of the allowances, this model must address the situation in which an entity sells an allocated allowance, but still must return an allowance to the scheme administrator (ie the liability for the allocation). In this case, this model would require the entity to remeasure the allocated allowances to be repurchased for return to the scheme administrator. For example, an entity may be allocated 100 allowances, but immediately sells 40. The entity may however still have an obligation (the liability for the allocation) to return 100¹². Of the allowances expected to be returned, the entity is exposed to market price changes for the 40 it has sold. Thus the liability for those 40, should be remeasured to the current fair value of the allowances to reflect this exposure. This remeasurement should occur until those allowances are replaced, or the liability for the allocation is settled.

Pros and Cons of Model 1(ii) with no remeasurement

26. Proponents of this model oppose the use of fair value beyond the initial measurement because it adds complexities, volatility, and additional costs. In

¹⁰ This criterion is relevant for US GAAP (ASC Topic 320, *Investments – Debt and Equity Securities*, but not relevant for IFRS 9 *Financial Instruments*.

¹¹ IAS 36 *Impairment of Assets* and ASC Topic 350 *Intangibles – Goodwill and Other*.

¹² Part C discusses how an entity should measurement the quantity of allowances to be returned in the liability for the allocation.

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addition, they believe these factors outweigh any decision-usefulness that would be obtained by using fair value as the subsequent measurement attribute.

27. Furthermore, those that support this model argue that subsequent remeasurement of the asset and the liability for the allocation to fair value could expose an entity to earnings volatility that will not ultimately be realized. For example, an entity might purchase allowances at the beginning of the period to ‘cover’ an expected shortfall in allowances at the end of the period. Because the allowances are remeasured at fair value and there is no liability for the purchased allowances until the entity emits in excess of allocated allowances¹³, earnings volatility will occur.
28. Opponents of this model do not believe fair value is the most relevant and representationally faithful measurement attribute. They believe measurement should be at the price paid for the allocated allowances (ie NIL). These opponents believe that allowances are inputs that are consumed in a production process and should be measured consistently with other assets of the same nature (ie price paid).

Model 2 – Price paid with no remeasurement

29. Model 2 requires the initial measurement of the allowances to be based upon the price paid by the entity at the time of acquisition. This would result in an initial measurement of NIL for both the allocated allowances and the liability for the allocation. For purchased allowances, this model would result in a similar¹⁴ *initial* measurement as the fair value model. This model also will not require remeasurement of either purchased or allocated allowances. Consistent with model 1(ii) discussed above, this model would require an impairment model for the assets.
30. Since this model does not require remeasurement of the allowances, the situation of an entity selling allocated allowances must be considered. In this model, an entity would also be required to remeasure the liability for the allocation if an

¹³ This issue is discussed in IASB Agenda Paper 5B/FASB Agenda Paper 7B.

¹⁴ The staff observe that the fair value model would not include transaction costs. These costs would be included in the measurement of the allowances in the price paid model.

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entity sells allocated allowances, but must return allowances to the scheme administrator (this concept is discussed in paragraph 25 above).

31. In addition, because the allocated allowances are measured at NIL in this model, if an entity was to sell the allocated allowances that are measured at NIL, the proceeds from the transaction would be recognised as a gain in earnings (profit and loss)¹⁵.

Pros and Cons of Model 2

32. Proponents of this model suggest that allowances are generally inputs to the production process (similar to materials used to produce a good or service). The price paid for purchased allowances is the most appropriate measurement attribute because this price represents the *actual* cost of emitting. Thus, the entity should record the allowances at the price paid and “expense”¹⁶ the cost of the allowances as it emits. Furthermore, any remeasurement to inputs of a production process would be inconsistent with Topic 330 *Inventory* and IAS 2 *Inventory* and therefore the allowances should remain at the initial measurement. Further these proponents believe Model 2 is appropriate because it is currently used by entities. See Appendix A.
33. Opponents of this model assert that the resulting difference in measurement between purchased and allocated allowances misrepresents the economic benefits an entity derives from the allowances. Allocated allowances produce the same economic benefits for the holder as purchased allowances. Furthermore, after the allocation, it is impossible to distinguish an allocated allowance from a purchased allowance. Opponents also do not like the opportunity for entities to recognise a gain by selling the allocated allowances measured at NIL.

¹⁵ The staff observe that this gain may be offset by an increase in the liability for the allocation, because of the short position that is created by selling the allocated allowances that need to be returned.

¹⁶ An entity may use an inventory costing formula that calculates this expense on a weighted-average basis. This is consistent with the current practice of some entities.

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*Model 3 – Business approach*¹⁷

34. Model 3 requires an entity to determine how it *intends* to use the purchased and allocated allowances in order to establish the initial and subsequent measurement attributes. The use of allowances would be segregated as follows:
- a. *Held for use* – allowances determined to be held for use will be used to settle liabilities under the scheme (that is, not sold) and will be initially measured in accordance with **Model 2**¹⁸ – Price paid (ie NIL for allocated allowances).
 - b. *Trading* – allowances determined to be traded in the market will be measured in accordance with **Model 1(i)** – Fair value with remeasurement.
35. The models proposed for each category would be applied as they are described above.
36. The business approach model would measure the liability for the allocation consistently with the entity's intended use of *allocated* allowances¹⁹. If the intent is to trade the allocated allowances, then any liability for that traded (allocated) allowance would be measured at fair value (consistent with **Model 1** with remeasurement). If the intent is to hold and use the allocated allowances, then any liability for the held (allocated) allowance would be measured at the price paid (consistent with **Model 2**).

Pros and Cons of Model 3

37. Proponents of this model argue that by matching the entity's intention with the accounting for the allowances, this model is the most faithful representation of

¹⁷ The staff have summarized the business approach model. There are many complexities that the staff would bring back to the boards should the boards decide to adopt this model. For example, the staff will need to outline how an entity can classify an allowance as 'trading' or 'held for use' and consider any tainting rules that may be required.

¹⁸ The staff have proposed Model 2 for this category because it is the most logical. Arguably, the model that requires fair value with no remeasurement [Model 1 (ii)] could also be applied to this category. Should the boards decide to adopt this model, the staff will provide the board at a future meeting with an additional analysis of which model should be selected for this category.

¹⁹ As discussed above, the liability for the allocation is measured consistently with the allocated allowances.

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what will actually happen. Furthermore, for an entity that intends to use all its allowances to settle its emission obligation, the model does not burden those entities with the additional complexities and costs of fair value measurement and remeasurement each reporting period. Furthermore, this model will eliminate the volatility created by remeasuring, when an entity purchases allowances intended to cover an expected future shortfall in allowances or excess allowances are held (this would result from Model 1 (i) – Fair value with remeasurement).

38. Opponents of this model argue that the approach would not produce useful information for users, because it is complex and it would reduce comparability between entities. Specifically, they have concerns that it will be difficult to define an entity's intent as *Trading* or *Held for use* both initially and as its intent changes over time. This can be further complicated by entities that are both emitters and traders. Further, they believe entities will likely define the same activities differently resulting in different accounting treatment for transactions that are in substance the same.

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Staff Recommendation

39. The staff recommends Model 1 (i) – fair value with remeasurement. The purchased and allocated allowances, and the liability for the allocation should be initially and subsequently measured at fair value. Fair value is the most relevant measurement attribute because the allowances are tradable. Initially and subsequently measuring the allowances and the liability for the allocation at fair value faithfully represents the substance of the underlying transaction. Therefore, some believe measuring allowances at fair value initially and subsequently provides more decision-useful financial information than the other models. Furthermore, Model 1(i) avoids the complexities of the other models (ie the requirement for impairment analysis, classification decisions based upon management intentions (trading v. held-for-use) and the complexities of accounting for a sale of the allocated allowances).

Question 1

Q1: Do the boards agree with the staff recommendation that the purchased and allocated allowances, and the liability for the allocation should be initially and subsequently measured at fair value? If not, which model do the boards support and why?

Part C - Analysis of how to determine the quantity of allowances expected to be returned (the liability for the allocation)

40. In the staff's view, there are two main approaches for determining the quantity of allowances that must be returned to the scheme administrator. The two approaches are discussed as follows:
- a. *Expected return approach* - requires an entity to estimate the initial measurement of the quantity of allowances to be returned based upon expectations.

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- b. *Derecognition approach* – requires the initial measurement of the quantity of allowances to be returned, as the total number of allowances allocated. Subsequent derecognition would be based upon passing a specified threshold.

a) *Expected return approach*

41. An entity would initially measure the quantity of allowances to be returned by estimating the number of the allocated allowances that it expects to return (ie the expected outcome). The expected outcome is the mean, ie the probability-weighted average of a reasonable number²⁰ of possible outcomes²¹. Importantly, an entity cannot expect to return more allowances than it was allocated.
42. The expected outcome would be determined using all relevant information. Relevant information may include (for example) an entity's levels of expected emissions in the light of production plans and actual implementation of methods to reduce emissions.
43. The probability-weighted average calculation method for the expected return approach is not a new concept. There are other proposals of the boards that use a probability-weighted average calculation to determine expected outcomes. For example, the exposure draft *Measurement of Liabilities in IAS 37* requires an entity to consider a 'probability-weighted average of the present values of outflows for the possible outcomes' in estimating the expected present value of the outflows required to fulfill an obligation²². A probability-weighted technique is also used in the exposure draft *Leases* for lessees to calculate the present value of lease payments payable²³ and is also one of the building blocks in the exposure draft

²⁰ Paragraph 14 of exposure draft *Leases*. Paragraph B21 indicates that 'an entity need not assess every possible outcome to identify the reasonably possibly outcome' to be able to assess the expected outcome.

²¹ This calculation may also require an entity to consider a risk adjustment. A risk adjustment quantifies the risk that expectations to return allowances may differ from actual. The staff note that this issue is being discussed in other projects. The staff propose to bring this issue back to the boards at a future meeting.

²² Paragraph B3 of exposure draft *Measurement of liabilities in IAS 37*.

²³ Paragraph 14 of exposure draft *Leases*.

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Insurance Contracts used to determine the present value of the fulfillment cash flows²⁴.

44. When determining subsequent measurement of the quantity of allowances to be returned, an entity would reassess the expected outcome if there is a change in facts and circumstances that may indicate a change in the estimates in the quantity of allowances to be returned from the previous reporting period²⁵. Changes in the measurement of the quantity of allowances, when combined with the price of the allowances (above), would be recognised as income or expense.

b) Derecognition approach

45. The derecognition approach measures the quantity of allowances to be returned, initially, as the total number of allowances allocated.
46. Subsequently²⁶ the entity would assess when it can decrease that quantity of allowances to be returned, because the entity can reduce its emissions below the allocation and thus is not required to return the allocated allowance. An entity would reassess at each reporting period whether it can decrease the quantity of allowances to be returned.
47. By decreasing its estimate of the quantity of allowances to be returned, the entity is derecognising a portion of the liability for the allocation (which will thus be recognised as earnings). Essentially, this portion of the liability no longer qualifies as a liability, because the entity is no longer required to transfer economic resources to settle the obligation (ie the entity is no longer required to return those allowances, or reduce emissions.) The next issue in applying this approach is therefore assessing when the entity is no longer required to return the allowance, or in other words, when the entity can conclude that it has reduced its emissions?

²⁴ Paragraph 22 of exposure draft *Insurance Contracts*.

²⁵ Paragraph 17 of the exposure draft *Leases* indicates 'the lessee shall reassess the carrying amount of the liability to make lease payments arising from each lease if facts and circumstances indicate that there would be a significant change in the liability since the previous reporting period.'

²⁶ We have used the term 'subsequently' to mean 'after initial measurement', but theoretically this could mean immediately after initial measurement (ie also on 'Day 1').

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48. Other standards and proposals include criterion for determining when a liability can be derecognised. IAS 39 *Financial Instruments: Recognition and Measurement* requires the derecognition of financial liabilities when ‘it is extinguished—ie when the obligation specified in the contract is discharged or cancelled or expires’²⁷. ASC Topic 405 indicates that ‘a debtor shall derecognise a liability if and only if it has been extinguished.’ The exposure draft *Revenue from Contracts with Customers* also permits entities to ‘derecognise a performance obligation’ (and thus recognise revenue) when a performance obligation is satisfied. In the proposed revenue recognition model, a performance obligation is satisfied when ‘the customer obtains control of that good or service’²⁸. As with other standards, derecognising the liability for the allocation by determining that an entity has reduced emissions will require specific criterion.
49. The staff believe that the Boards could conclude that an entity has reduced emissions, and thus can decrease the quantity of allocated allowances to be returned, by specifying one of the following criterion:
- i. Virtually certain
 - ii. Probability threshold
- i. Virtually certain*
50. This criterion would require the entity be virtually certain it will reduce its emissions below the allocation of allowances before it can reduce the quantity of allowances to be returned.
51. As with an entity’s estimates in the expected return approach, many factors may enable an entity to be virtually certain that it will reduce its emissions. For example, an entity may consider its levels of expected emissions in the light of production plans and the actual implementation of methods to reduce emissions.
52. An entity may assess whether it is virtually certain it has reduced emissions at any time. If the relevant factors are present at initial measurement (ie ‘Day 1’), this

²⁷ Paragraph 39 of IAS 39 *Financial Instruments: Recognition and Measurement*.

²⁸ Paragraph 25 of exposure draft *Revenue from Contracts with Customers*.

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may result in an entity decreasing the quantity of allowances at the time of initial measurement of the liability for the allocation. This may occur for example if an entity has shut down all or a significant portion of its operations, or has significantly decreased its production plans and thus is virtually certain its emissions will be below that of the allocated allowances.

53. However, in normal circumstances this approach may result in an entity waiting until the end (or near the end) of the compliance period before concluding that it is virtually certain it has reduced emissions and thus not be required to return all of the allocated allowances. It would be problematic if an entity reduced the quantity of allowances to be returned using this criteria, and then subsequently assessed that it hadn't reduced emissions, and thus was required to increase the quantity of allowances to be returned for all, or a portion of the previous reduction.

54. The criterion of being 'virtually certain' is consistent with the criterion for derecognition of a liability for a conditional government grant in IAS 41 *Agriculture*. Specifically, paragraph B70 of IAS 41 states:

An entity should recognise a conditional government grant as income when the entity meets the conditions attaching to the government grant.
[paragraph B70]

55. Interestingly, this criterion in IAS 41 was chosen over the following alternative approach:

An entity should recognise a conditional government grant as income when it is probable that the entity will meet the conditions attaching to the government grant. [paragraph B70]

ii) Probability threshold

56. The probability threshold criteria requires an entity to assess the likelihood that it will reduce its emissions (below the allocation) against a specified probability threshold before it can decrease the quantity of allowances to be returned and thus derecognise a portion of the liability for the allocation. One possible threshold is:

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*More Likely Than Not*²⁹ – An entity would conclude that it can reduce its emission below the allocation if the probability that it will reduce its emission is greater than the probability that it will not.

57. This model may yield fluctuations in the liability (ie an entity may derecognise the liability for the allocation if the more likely than not threshold is met but then may have to re-recognise that liability if the threshold is not met in a future period).

Pros and Cons of the expected return and derecognition approach

58. Proponents of the expected return approach believe that a probability-weighted expected outcome calculation is decision-useful, because it considers a reasonable number of outcomes and their probability, as opposed to only the most likely outcome. Further, they believe that most entities will be able to perform this calculation without significant difficulty.
59. Those opposed to the expected return approach believe the calculation is complex and do not believe the measurement is sufficiently reliable, in particular because the outcomes are within control of the entity. Furthermore, opponents believe that any form of probability will produce inconsistent results since entities will have different judgments. In addition, opponents believe that any incremental benefit of a probability-weighted approach is outweighed by the additional complexity and cost of the calculation.
60. Proponents of the derecognition approach believe that this approach creates a higher threshold for an entity to reduce the quantity of allowances to be returned and thus a higher threshold for income recognition. Furthermore, the criteria of being ‘virtually certain’ that an entity emits, appears to be closest to the derecognition criteria in other standards and proposals (specifically, IAS 41, IAS 39 and exposure draft *Revenue from Contracts with Customers*).

²⁹ This notion of *more likely than not* is defined as ‘probable’ in paragraph 23 of IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*. The phrase is also consistent with ASC Topic 740 Taxes that defines ‘more likely than not’ to mean there is a likelihood of more than 50% that the future event would occur.

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61. Those that support the criteria of ‘more-likely-than-not’ for the derecognition approach believe that this approach may produce more timely information than the ‘virtually certain’ criteria, but is less complex than the probability-weighted calculation.
62. Opponents of the derecognition approach argue this approach is too conservative in some instances. Thus this approach may be potentially misleading because it may not provide timely information about whether an entity will be required to return the allocated allowances.

Staff Recommendation

63. The staff recommends the expected return approach because the staff believes it is the most relevant measure of the quantity of allowances to be returned. The entity should measure the quantity of allowances to be returned for the liability for the allocation by using a probability-weighted average.

Question 2

Q2: Do the boards agree with the staff recommendation that to measure the liability by using the probability-weighted approach? If not, which view do the boards support and why?

Appendix A

Examples of current practice for measuring the allowances

- A1. Measurement of the allowances varies for a number of entities currently subject to a cap and trade scheme. This is primarily because there is no definitive guidance for accounting for these schemes.
- A2. In the U.S., the utilities filing regulatory financial statements with the Federal Energy Regulatory Commission (FERC) require entities to recognise allowances that are held to settle emission obligations at the price paid (eg NIL for allocated allowances). Recognising the allowances at the price paid is also typically used for U.S. GAAP financial statements as no guidance currently exists under U.S. GAAP.
- A3. Some entities applying IFRS are also initially measuring allocated allowances at the price paid (ie NIL), consistent with this model and U.S. GAAP filers. The initial measurement of the allocated allowances is supported by paragraph 23 of IAS 20 *Accounting for Government Grants and Disclosure of Government Assistance* which indicates that as an alternative to accounting for non-monetary assets at fair value, an entity may recognise the asset (and government grant) at a nominal amount.
- A4. However the staff observe that some entities subject to the European Union Emissions Trading Scheme and applying IFRS have also been initially measuring purchased and allocated allowances at fair value.
- A5. Regardless of the initial measurement of the allowances, many entities are not subsequently remeasuring the allowances³⁰.

³⁰ PWC Trouble-Entry Accounting revisited (2007). Accessed: September 2010.
http://www.pwc.co.uk/pdf/trouble_entry_accounting.pdf