CLEAN DEVELOPMENT MECHANISM

CDM-MP60-A17

Information note

Issues related to the “Guidelines on the assessment of investment analysis”

Version 01.0

United Nations
Framework Convention on
Climate Change

COVER NOTE

1. Procedural background

1. In accordance with paragraph 43 of the "Modalities and procedures for direct communication with stakeholders" (EB 62**, a**nnex 15), the secretariat, in consultation with the Chair, shall bring the attention of the Executive Board (hereinafter referred to as the Board) of the clean development mechanism (CDM**)** to the communications on policy, methodological and administrative issues when they require the attention or further guidance of the Board. In consultation with the Chair of the Board, the secretariat may refer the communications directly to a panel or working group for their consideration at the next meeting.

2. Purpose

2. The purpose of this information note is to present the Methodologies Panel's (Meth Panel) analysis and recommendation to the Board with regard to the issue raised in letter 2013-271-S.

3. Key issues and proposed solutions

3. The submitter of the letter 2013-271-S seeks clarification on the applicability of the approach detailed for calculating beta when applying the Capital Asset Pricing Model (CAPM) for determining the benchmark.

4. Impacts

4. As most projects determine their additionality on the basis of an investment analysis, correctly defining which financial models are acceptable in which circumstances is crucial to ensure the environmental integrity of the CDM.

5. Proposed work and timelines

5. Not applicable.

6. Recommendations to the Board

6. The Meth Panel recommends **that the Board** consider the issue raised in the letter from the stakeholder, and recommends the Board to either:

(a) Request the Meth Panel or the secretariat to develop further guidance on how the cost of equity should be calculated based on "best financial practices", including: (i) the approach to be followed in the application of financial models for determining the benchmark to compare the project against such as the CAPM; as well as (ii) circumstances under which the application of financial models (including but not restricted to the CAPM) can be considered appropriate; or

(b) Consider making the use of values provided in Appendix (a) to the "Guidelines on the assessment of investment analysis" mandatory.

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1. Background

1.1. Submission received

1. On 20 June 2013, the secretariat received one letter from a project participant, “Guidance on calculation of Beta in CAPM” (2013-271-S), seeking clarification on the generic applicability of the Capital Asset Pricing Model (CAPM). The submitter claims that following the rejection of a specific project located in India, DOEs have insisted on and obliges the project proponent to “follow an incorrect approach to calculate the beta for Indian projects which has thereby set a precedence which is unfair and unjust and leads to incorrect and overly conservative benchmark values wherein conservativeness overrides correctness”.

1.2. Submitter’s request

2. The submitter requests “the EB to kindly provide specific confirmation that the approach of calculating beta as described above is acceptable or suggest alternate methods of calculating the beta to be used in the CAPM”. The submitter notes “that in response to AM_CLA_0007 and AM_CLA_0008 the EB has referred to an upcoming guidance on the CAPM. However, in view of such a guidance is yet to be made available, we request the Board to kindly provide us with a working solution for the present time.”

2. Analysis

2.1. Current guidance

3. The current version of the “Guidelines on the assessment of investment analysis (version 05)”, paragraph 15, states the following:

   “Guidance: If the benchmark is based on parameters that are standard in the market, the cost of equity should be determined either by: (a) selecting the values provided in Appendix A; or by (b) calculating the cost of equity using best financial practices, based on data sources which can be clearly validated by the DOE, while properly justifying all underlying factors. The values in the table in Appendix A may also be used, as a simple default option, if a company internal benchmark is used.”

4. Rationale: The values in Appendix A reflect, as an approximate value, the returns on equity expected by the market for different sectors and countries (see details on the calculation of the table further below). The expectation of return depends on conditions of the market that can be modelled, taking into account the history (time series) of the market key variables (explaining variables proper of the technology and/or sector under analysis).

5. The guidelines therefore neither restrict options available to project participant for setting a benchmark nor impose the use of a specific model. Compliance with the guidelines does nevertheless require to make use of best financial practices. No specific guidance is provided on how the best financial practice is used: (i) in the choice of the approach; as well as (ii) in the implementation of the selected approach.

2.2. Approach detailed by the submitter

6. The proposal set out in the request for clarification follows Option “b”. The project participants propose a step-wise protocol to determine the cost of equity under this option. The proposed protocol takes data from the stock market of the host country (India) and applies a mathematical procedure to transform the asset beta (beta derived from analysis of a stock exchange over a certain period of time) into an equity beta (adjusted beta for direct calculation in the CAPM).

2.3. Meth Panel assessment

7. The Meth Panel recognized that the proposed protocol for calculating beta is in principle acceptable. The Meth Panel, however, noted that “Guidelines for assessment of investment analysis”, while offering CAPM as one of the options, requires the use of “best financial practices”. In this regard, certain circumstances (see the analysis below) may prevent an approach, including the proposed protocol from representing the “best financial practices”. The responsibility to determine whether the selected approach represents the “best financial practice” against the context in which it is applied rests primarily with the validating DOE.

8. The Meth Panel assessed the proposed protocol noting that it is based on procedures used by USA scholars and financial institutions and concluded that adjustment is needed for the application of the CAPM developed in a context of US markets to other countries. Adjustments may be needed with regard to the type and size of stocks used, because the beta expresses a relative position of a specific company or sector versus the market. The market must be representative to avoid bias from sectors strongly dominant in the economy. Moreover, the frequency of the data points used (the proposal is monthly data) can significantly impact the results of the analysis (the datasets should take daily data for a more transparent analysis). Other aspects include quality and history of regulation, reputation of the stocks during crisis, influence of exchange rate against stronger currencies and inflation levels correlated with the volatility of the stocks (additional risks) and number of companies evaluated to assure adequate correlations among others.

9. In summary, the economic fundamentals behind the CAPM require for its application specific market conditions in the host country. The compliance with these market conditions is critical.

10. The Meth Panel noted that the CAPM is used in a number of projects to determine a different cost of equity than the default values offered by the “Guidelines for assessment of investment analysis”. In many such situations, similar issues could be faced as with the approach proposed in the letter to the Board.

11. The main risk with approaches without adequate guidance on how the cost of equity should be calculated based on “best financial practices” is the possibility of an overestimation of beta calculations and the cost of equity that would compromise the benchmarking for additionality. Betas for risky companies are over 1.0 and this could be the case in most emerging economies the following decade.

12. The bottom line of this request is the lack of clarity in the “Guidelines for assessment of investment analysis” on what are acceptable “best financial practices”. This leads to the use of literature values and variations in the application of the CAPM and consequently

different costs of equity calculated for similar project activities within the same host country. This may cause difficulties for DOEs in assessing the investment analysis.

3. Recommended approach

13. The Meth Panel recommends that the Board consider the issue raised in the letter from the stakeholder, and recommends the Board to either:

(a) Request the Meth Panel or secretariat to develop further guidance on how the cost of equity should be calculated based on “best financial practices”, including: (i) the approach to be followed in the application of financial models for determining the benchmark to compare the project against such as the CAPM; as well as (ii) circumstances under which the application of models (including but not restricted to the CAPM) can be considered appropriate; or

(b) Consider making the use of values provided in Appendix (a) to the “Guidelines on the assessment of investment analysis” mandatory.

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Document information

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