

Chapter B7 – STANDARD FOR DESCRIBING COSTS

Purpose The purpose of this standard is to ensure the completeness, reliability and consistency of all costs specified in the forest description.

STANDARD B7.1

Completeness of costs

The forest description shall ensure that:

- costs are declared for all operations implicit in the description of the forest, which are relevant for the purpose of the forest description;
- costs include all forest level costs of being in business (such as rates, land occupation costs, salaries and associated costs, consultants or management fees, buyer's margin as applicable in stumpage sales, indirect operations, e.g. protection and animal control);
- costs should adequately represent the overheads and administration costs associated with the forest asset. Consideration should be given to the extent to which corporate costs are related to the forest or are associated with other activities. Costs associated with investment structure (e.g. fund management and trustee costs) should not be included ;
- costs are calculated in such a way that accurately reflect expected future costs. This is particularly pertinent to overhead costs which can be represented on the basis of \$/m³ (or tonne), \$/ha, a percentage of operational costs or as a single fixed cost; and
- the valuation should clearly indicate if a provision has been made for working capital.

STANDARD B7.2

Reliability of costs

The forest description shall:

- identify the source of costs;
- describe models of cost (e.g. logging cost/piece size model);
- note the relevance of externally sourced costs;
- describe any assumed changes in future real or nominal costs;
- compare current actual costs with those assumed in valuing the asset and describe the rationale for any differences; and
- provide a reconciliation to independent sources.



STANDARD B7.3
Consistency of costs

The forest description shall ensure:

- consistency of costs with other sections of the forest description;
- internal consistency with no double counting (e.g. treatment of supervision costs);
- external consistency (e.g. with land value or capital value. Land value includes road formation but excludes road metalling/gravelling and culverts); and
- the currency and GST status of the costs is declared.

STANDARD B7.4
Disclosure of cost movements

The forest description shall describe

- assumed future real cost changes (including zero change);
- the results of any analysis that has been done including:
 - method of forecast movement;
 - statistical analysis showing forecast trend;
 - sensitivity analysis;
 - and
- any assumed movements in factors impacting on future costs.

STANDARD B7.5
Applicability

The forest description shall contain a statement describing the author's view as to the applicability of the costs for the purposes of the valuation. The statement shall include the rationale for using the costs adopted in the valuation.



Guidance Notes on Costs Used in Forest Valuation

Background

The current management of a forest will have specific costs associated with it. These are likely to provide useful guidance to the valuer as to the appropriate costs to use when valuing the forest. However, the valuer should also look to wider evidence to determine the costs to include.

Objective

The objective is to look at costs from the perspective of the market.

Approach

The valuer needs to consider what costs would be recognised by the market. In the case of young stands, where a cost compounding approach is being considered, costs such as a return on the land value or the overhead costs associated with the current owner may or may not be included. Likewise, in developing cashflows for the forest, the valuer need not use current costs if it is possible the forest might be managed differently. Examples might include a more efficient management structure, or differences in costs that might occur through outsourcing various operations (e.g. in-house harvesting crews versus contracting). Conversely additional costs may be required for the business to operate effectively.

Working capital

A first inclination in preparing cashflow projections for forest assets is to assume that funding flows will coincide with the dates that produce is sold, or costs are incurred. To consider some examples:

- a load of logs from the forest crosses a weighbridge, promptly generating an invoice on behalf of the forest owner to the sawmill buying the logs; or
- the same weighbridge details are the basis for an invoice from the harvesting and cartage contractors to the forest owner, requiring payment for their services.

In practice, although the invoices may be submitted promptly, neither leads to an immediate flow of funds. The credit policies of the respective parties determine when the payments are actually made. Thus:

- the invoices to the sawmill are summarised in a statement at the end of the month. Once this is received by the sawmill accountants, they have 20 days in which to make payment; and
- likewise, the harvesting and transport contractors may summarise their accumulated invoices, and for the sake of demonstration it is assumed that these are submitted fortnightly (once again with 20 days to pay).



When modelling the cashflows of a collective business, the gap between when the obligation to pay is incurred and the corresponding funds are actually received can be material. Discounted cash flow (DCF) analysis is based on the premise that there is a time value to money. If there is a delay in receiving money, this represents an opportunity cost because had the funds been received they could have been put to other productive use.

There are several possible approaches to addressing this:

- a detailed representation of actual amounts and timing of operations (on a daily, weekly or monthly resolution rather than annual basis);
- a generalised formulaic treatment designed to proxy the need for additional cash (see example below); or
- to change the timing of the cashflow components of the DCF model to reflect cash in/out rather than invoicing. For example, if payments to contractors are made on a 30-day basis, rather than assuming mid-year occurrence, the values could be discounted from a point equivalent to mid-year plus 30 days.

A simple format that recognises working capital requirements is shown below. In this case the calculation is only based on changes in the revenue line.

	A	B	C	D	E	F	G	H	J	O	P	Q	R	S	T
1															
2															
3			Y.e. 30 June												
4			2014	2015	2016	2017	2018	2019	2025	2026	2027	2028	2029		
5	Revenue		1 316	3 698	4 565	4 565	4 565	4 565	4 565	4 565	4 565	4 565	-		
6	Production costs		472	1 465	1 924	1 924	1 924	1 924	1 924	1 924	1 924	1 924	-		
7	Other costs		294	613	649	644	644	644	644	644	644	644	-		
8	Stumpage		-	-	-	224	484	484	484	484	484	484	-		
9	Working capital	144	-	261	95	-	-	-	-	-	-	-	(500)		
10		=C5/365*40			=E5/365*40-SUM(\$B9:D9)								=R5/365*40-SUM(\$B9:Q9)		
11	NET CASH FLOW		550	1 358	1 897	1 773	1 513	1 513	1 513	1 513	1 513	1 513	500		
12															
13															
14															

Please note:

- in this case it is assumed that the cash from revenues is not actually received until 40 days (on average) after invoices are raised;
- amounts appear in the working capital row as the quantity of revenue increases from one year to the next. If the revenue remains the same, no working capital event appears;
- a final negative entry appears in 2029 when the accumulated working capital amount is released; and
- entries in the working capital row are included with the other costs that are deducted from the revenue line to produce net cashflow.



A more refined example can use a similar formulation but consider additional items such as changes in payables and inventory levels.

Overhead costs

Overhead costs are typically represented on the basis of $\$/\text{m}^3$ (or tonne), $\$/\text{ha}$, a percentage of operational costs or as a single fixed cost. The valuer needs to consider the most appropriate means of modelling overheads for the forest in question. For example, in the case of an even age-class forest, the total cost applicable to the current crop derived from a $\$/\text{m}^3$ calculation, will remain relatively constant over the entire rotation. Conversely the total cost calculated from a $\$/\text{ha}$ rate will decline as the current crop is harvested (when considering just current crop cashflows).



Revision History

Original Standard

NZIF. Released in May 1999

Revision in August 2020

NZIF. Main changes:

- Standard B7.1 now requires that: (i) costs should adequately represent the overheads and administration costs associated with the forest asset; and (ii) the valuation should clearly indicate if a provision has been made for working capital;
- Standard B7.2 now requires that: (i) any assumed changes in future real or nominal costs are declared; and (ii) valuation costs are compared with current actual costs;
- the addition of Standard B7.4 that requires a statement on the applicability of the costs for the purposes of the valuation; and
- the addition of Guidance Notes.

Revision in September 2020

FA. Main change:

- minor editing.

Revision in December 2025

FA/NZIF. Released as part of Australia New Zealand Forest Valuation Standard.

