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Evaluate the different ways to compute capitalized interest and properly incorporate midyear loans into the capitalized interest calculations.

CAPITALIZED INTEREST: COMPLEXITIES

This section covers two complexities associated with computing the amount of capitalized interest.

1. An alternative method for computing the amount of capitalized interest, the **weighted average accumulated expenditure method**, yields a different number for capitalized interest than does the approach illustrated earlier in the chapter. The approach illustrated earlier will be called the **avoidable interest method**.
2. When new borrowings occur during the construction period, the interest capitalization computation must be adjusted to avoid capitalizing interest that was never incurred.²¹

²¹ These two complexities are also explained by Kathryn M. Means and Paul M. Karenski, "SFAS 34: A Recipe for Diversity," *Accounting Horizons*, September 1988, pp. 62–67.



Weighted Average Accumulated Expenditure Method

The same numbers from the Cutler Industries, Inc., example shown earlier in the chapter are used here. Recall that borrowings outstanding as of January 1, 2002, are as follows:

Construction loan, 12% interest	\$2,000,000
5-year notes payable, 11% interest	3,000,000
Mortgage on other plant, 9% interest	4,800,000

The weighted-average interest rate on the general nonconstruction debt was computed earlier as 9.8%.

Expenditures on the project during 2002 were incurred as follows:

January 1, 2002	\$1,200,000
October 1, 2002	1,800,000

Interest to be capitalized for 2002 was \$192,500, computed using the avoidable interest method.

An alternative way to compute the amount of capitalized interest is to use the weighted average accumulated expenditure method. The amount of weighted average accumulated expenditures for 2002 is computed as follows:

Expenditure Date	Amount	Fraction of the Year Outstanding	Weighted Expenditures
January 1, 2002	\$1,200,000	12/12	\$1,200,000
October 1, 2002	1,800,000	3/12	450,000
Weighted average accumulated expenditures for 2002			\$1,650,000

Using this technique, computation of the amount of interest to be capitalized for 2002 is as follows:

Weighted Average Expenditure Amount	Interest Capitalization Rate	Capitalized Interest
\$1,650,000	12%	\$198,000

Caution! Don't be too hard on the average accumulated expenditure method. It is easy to use and gives a reasonable approximation of the value computed using the avoidable interest method.

If the weighted average accumulated expenditures had exceeded the \$2,000,000 amount for the construction-specific loan, capitalized interest on the excess would have been computed using the 9.8% average rate on general debt.

The difference between the \$198,000 computed using the weighted average accumulated expenditure method and the \$192,500 computed using the avoidable interest method arises because the weighted average accumulated expenditure technique makes the simplifying assumption that the weighted average expenditure amount, and only that amount, was outstanding for the entire year. This assumption does not give as accurate an indication of the amount of interest cost that could have been avoided if the specific construction expenditures had been used to repay loans. However, both techniques are in accordance with the accounting standards.

New Borrowing During the Construction Period

Assume that the \$2,000,000, 12% construction loan was obtained on July 1, 2002, rather than on January 1, 2002. Just as expenditures during the year are weighted to determine the average accumulated expenditures, loans obtained during the year can be weighted to compute a weighted average loan amount. The 2002 weighted average loan amount for the July 1, 2002, \$2,000,000 construction loan is \$1,000,000 ($\$2,000,000 \times \frac{1}{2}$). The

computation of interest eligible for capitalization for 2002, using the weighted average accumulated expenditure method, is as follows:

Weighted Average Expenditure Amount	Interest Capitalization Rate	Capitalized Interest
\$1,000,000*	12%	\$120,000
650,000**	9.8%	63,700
		<u>\$183,700</u>

*Weighted average amount for the July 1 construction loan.

**\$1,650,000 – \$1,000,000. Recall that average accumulated expenditures for 2002 were \$1,650,000.

The reason that only \$183,700 would be capitalized in this case while \$198,000 was capitalized in the original case is because, in the second case, the construction loan was not needed until six months after the beginning of the project. Predictably, with lower interest costs traceable to the project, the amount of interest capitalized is lower.

A similar calculation, though a little more complicated, can be done using the avoidable interest method, as follows:

Date	Amount	Interest Capitalization Rate	Fraction of the Year Outstanding	Capitalized Interest
January 1, 2002*	\$1,200,000	9.8%	6/12	\$ 58,800
July 1, 2002**	1,200,000	12%	6/12	72,000
October 1, 2002	800,000	12%	3/12	24,000
	1,000,000	9.8%	3/12	24,500
Total capitalized interest for 2002				<u>\$179,300</u>

*Average rate on general debt of 9.8% is used for the first six months of the year because the 12% construction loan was not taken out until July 1.

**Reflects avoidable interest on the construction loan for the last six months of the year.

