

THEME: INVENTORY ESTIMATION TECHNIQUES

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ACCOUNTING TERMS: Retail Method Terminology

- **Original Sales Price** – The retail price at which goods are originally offered for sale.
- **Markup** – The difference between the cost of the good and the original sales price.
- **Additional Markup** – Any price increase above the original sales price.
- **Markup Cancellation** – A reduction of the sales price following an additional markup. A markup cancellation cannot reduce the sales price below the original sales price.
- **Net Markup** – The difference between additional markups and markup cancellations. It's the net increase in the sales price of goods above the original sales price.
- **Markdown** – Any reduction in price below the original sales price.
- **Markdown Cancellation** – Any increase in the sales price following a markdown. A markdown cancellation cannot increase the sales price above the original sales price. If it did, it would be an additional markup.
- **Net Markdown** – The difference between markdowns and markdown cancellations. In other words, it's the net decrease in the price of goods below the original sales price.

FEATURE ARTICLE: Retail Method Revisited

After reviewing the academic version of the “retail method” for valuing ending inventory, I realized that I probably oversimplified my explanation in article theme *Cost of Goods Sold*. In the question, “How Often Must I Take A Physical Inventory Count?”, I gave an example of a small retail store that sold T-shirts. The gist of the article was that if you don't want to be bothered with actually physically counting inventory each month, estimate your cost of goods sold. I suggested that if the average cost of goods sold is consistent, based on past history, simply apply that percentage to sales to find the estimate. For instance:

Sales	\$1,000
Average cost of goods sold	<u>x 63%</u>
Estimated cost of goods sold	\$ 630

At the end of the year, when a physical count is performed, adjust cost of goods sold up or down to reflect the true inventory count:

Estimated Inventory	\$40,000
Actual Inventory	<u>43,248</u>
Adjustment	\$ 3,248

Journal Entry:

DESCRIPTION	DEBIT	CREDIT
Inventory	3,248	
Cost of Goods Sold		3,248

Or, decrease inventory and increase cost of goods sold, if that is called for.

In my opinion this “rough” method works fine for us small guys. However, my method is not the true “retail method” so I feel obligated to clarify the difference.

This can get tricky to follow and probably only those of you who have retail operations that sell high volumes of a variety of products will be interested. It goes like this:

The purpose for using an estimating method is because it may not be practical or cost beneficial to physically count the inventory for interim financial statements or special purposes such as for theft or fire losses, etc. Under the retail method, *the value of ending inventory is determined by applying an average markup percentage to the total retail price of goods on hand.* Oh boy! The picture gets fuzzy right away with that statement. Let’s try again, but spell it out as we go.

Remember, the goal is to find the cost value of ending inventory, and this is done by using retail or selling price information. Retail stores usually have a pretty good handle on keeping track of their sales via cash register tapes, so there is no problem there. However, for the retail method to work, a store must keep track of all purchases both at cost and at retail, and all markups, markdowns, discounts and other price adjustments.

Example:

	<u>Retail Price</u>	<u>Cost</u>
Beginning inventory at retail	\$ 50,000	\$ 30,000 (d)
Add Purchases	190,000	<u>115,000 (c)</u>
Add Net Markups	15,000	
Subtract Net Markdowns	<u>(10,000)</u>	
Total	245,000 (a)	145,000 (b)
Subtract Sales	(180,000)	
Subtract employee discounts, theft, etc.	<u>(1,000)</u>	
Ending inventory at retail	\$ 64,000	
Subtract Markup (.41 x 64,000)	<u>(26,240)</u>	
Ending inventory at cost	\$ 37,760 (c)	

The markup percentage was found using the following formula:

Retail price (plus net markups and minus net markdowns) minus cost equals markup. Applying our example:

$$(a) \$245,000 - (b) \$145,000 = \$100,000$$

$$\$100,000 / \$245,000 = .41$$

Inventory is always recorded on financial statements at “historical cost”. Now that the store has an estimated inventory at cost, i.e., (c) \$37,760, it can be subtracted from the beginning inventory (d) \$30,000, plus purchases (e) \$115,000, or (b) \$145,000, to arrive at estimated cost of goods sold \$107,240. The next step is to write the adjusting journal entry:

DESCRIPTION	DEBIT	CREDIT
Cost of Goods Sold	107,240	
Inventory		107,240

This method should be applied to a separate department or class of goods. Be careful not to use this method on a mix of goods that don't have the same markup. You should check with your accountant before using this method because there may be special rules that apply depending on what type of inventory method is being used, i.e., LIFO, etc.

QUESTION: How Can I Value My Inventory If Lost In A Fire?

There is a rough estimate approach called the “Gross Profit Method” that can be used to determine the value of your entire inventory, if the case warrants it. Gross Profit, you may recall, is the difference between Sales Revenue and Direct Costs. Direct costs can be Cost of Goods Sold, Purchases, Freight-In, Production Wages, Contract Labor, Supplies, etc. Remember, “Gross profit” is not “Net Profit”. Net Profit comes after general and administrative costs. Here is the format:

Sales Revenue	\$100,000 (100%)
Less Direct Costs	<u>(40,000) (40%)</u>
Gross Profit	60,000 (60%)
Less Gen & Admin Costs	<u>(20,000) (20%)</u>
Net Profit	\$ 40,000 (40%)

If you know your normal gross profit percentage, (60%, for instance) then you automatically know that your cost of goods sold to sales ratio is 40%. To find ending inventory you can back into it with known figures.

Beginning inventory	\$ 25,000
Purchases	<u>60,000</u>
Available for sale	85,000
Estimated cost of goods sold (40% x \$100,000)	<u>(40,000)</u>
Estimate cost of inventory lost in the fire	\$ 45,000

To reiterate:

- (1) Find cost of goods sold by applying the cost to sales price ratio to sales.
- (2) Find the cost to sales price ratio by determining what the gross profit percentage is and subtracting it from 100.
- (3) Subtract cost of goods sold from beginning inventory plus purchases to find estimated ending inventory.

You can see that this is definitely not rocket science.

TIP: Figuring Sales Tax When It Is Included In Gross Sales.

I have a client who keeps track of his retail sales but doesn't break the sales tax out on the monthly sales report. I prepare his quarterly sales tax report so it is up to me to figure out how much sales tax he owes. No problemo! I have worked out a little conversion schedule (cheat sheet) that I keep near my desk to remember how it works, assuming a sales tax rate of .0725:

1. To find the portion of sales tax and taxable sales in a figure that includes both taxable sales and sales tax:

Divide 1.0 plus the sales tax percentage into the total figure.
Subtract the result from the total figure. The difference is the sales tax amount.

Example: Total sales figure \$2,000.00 divided by (1 plus sales tax % or 1.0725) = Taxable sales of \$1,864.80.

Subtract: Total sales figure \$2,000.00 less taxable sales – \$1,864.80
= Sales tax \$135.20

Another possibility:

2. To find the amount of taxable sales when the sales tax amount and sales tax percentage is known:

Divide the sales tax amount by the sales tax percentage. (Do not put a 1.0 before the percentage amount.)

Example: Sales tax amount \$135.20 divided by sales tax% .0725 (7.25%) = Taxable sales of \$1,864.80.

Other uses:

1. To find sales price when cost of goods sold and mark-up percentage are known:

Multiply cost of goods sold by mark-up percentage.

Add mark-up amount and cost of goods sold to get sales price.

Example:

Cost of goods sold	\$10.00	Cost of goods sold	\$10.00
Mark-up percentage	<u>.40</u>	Add mark-up	<u>4.00</u>
Mark-up	\$ 4.00	Sales price	\$14.00

2. To find cost of goods sold when sales price is known and mark-up percentage is known:

Divide sales price by 1.0 plus the mark-up percentage.

Example:

Sales price \$14.00 divided by 1.0 plus mark-up % 1.40 = cost of goods sold \$10.00

3. To find mark-up percentage when sales price and cost of goods are known:

Divide the sales price by the cost of goods sold.

Example:

Sales price \$14.00 divided by cost of goods sold 10.00 = mark-up % 1.40 (40%)

4. To find what percentage cost of goods sold is to the sales price:

Divide cost of goods sold by the sales price.

Example:

Cost of goods sold \$10.00 divided by sales price \$14.00 = cost of goods sold % .7143 (71.43)

If you are like me, I can never remember these formulas because I don't use them all the time. But, it sure is handy to have them within reach when I need them.

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