

# **FIFO**

by Sophia



#### WHAT'S COVERED

This tutorial will cover the inventory cost flow assumption known as FIFO, which is an acronym for First In First Out.

Our discussion breaks down as follows:

### 1. FIFO

FIFO is an inventory valuation method, which stands for First In First Out:



As an inventory valuation method, FIFO helps to provide information about cost of goods sold and ending inventory. Under FIFO, goods that were purchased first are the first to be sold, meaning goods are assumed to be sold oldest to newest. A benefit to using FIFO is that it resembles the physical flow of goods.

→ EXAMPLE Grocery stores or electronic stores, for example, want the inventory that they purchased first--their oldest products--to be sold first. In the case of grocery stores, they want to sell the oldest merchandise first so that their food doesn't spoil.



FIFO is First In First Out. Goods are assumed to be sold oldest to newest, which means that the most recent purchases are what remain in the ending inventory.

### 2. FIFO and Cost of Goods Sold

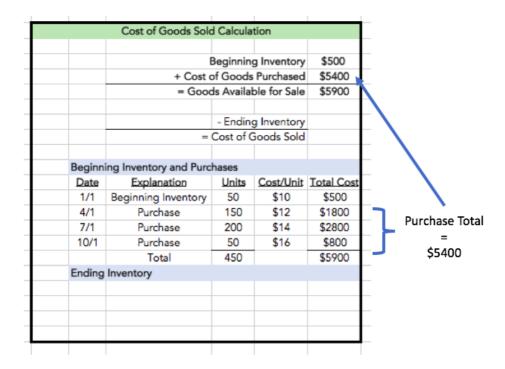
Next we will discuss FIFO and cost of goods sold. Remember, the cost of goods sold calculation starts with beginning inventory, then we add cost of goods purchased, which gives us goods available for sale. Then, we subtract out ending inventory, which equals cost of goods sold.



Let's walk through an example of calculating cost of goods sold using the inventory valuation method of FIFO. Below you will see a spreadsheet outlining the cost of goods sold calculation. We will begin with the first line, beginning inventory. Beginning inventory is pulled from our balance sheet or from our trial balance. You can also see there is a schedule, detailing beginning inventory and purchases.

	Cost of Goods Sol	d Calcula	tion	
	Cost of Goods 301	u Calcula	tion	
		Beainnin	g Inventory	\$500
	+ Cost			
	= Goods Available for Sale			
		- Ending	g Inventory	
	=	Cost of (	Goods Sold	
Beginn	ing Inventory and Pure			
Date	Explanation	Units	Cost/Unit	
1/1	Beginning Inventory	50	\$10	\$500
Ending	Inventory			
Liloning				

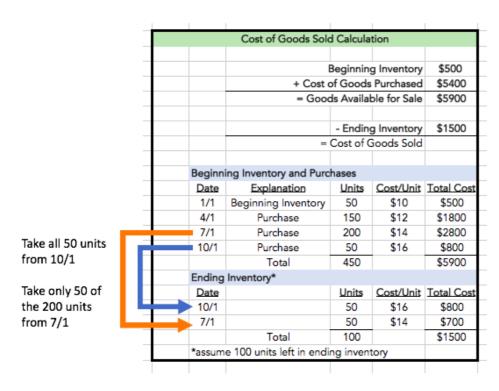
Once we have plugged in beginning inventory, we need to determine cost of goods purchased. If you look at the detail of all the purchases made, you can see that we made three purchases throughout the year.



We can take the total of those purchases, which is \$5,400, and drop that into the schedule, which means we now have total goods available for sale of \$5,900. Note that this is the total of beginning inventory plus all of the purchases.

Now we need to know what our ending inventory is. If you look at the ending inventory schedule below, we're going to make the assumption that we have 100 units left in our ending inventory.

So, if we're using FIFO and we have 100 units left, what does that mean? Which units are left in inventory? Under FIFO--First In First Out--, the oldest units (the units that came in first) were the first units to be sold. So when we are looking at ending inventory, we will be left with the newest units as our inventory. Start with the most recent purchase and work our way back.



If we have 100 units left, we know that we can take 50 units from the purchase made on the most recent

purchase of 10/1, and then we can take another 50 units from the purchase made on July 1. This means that our ending inventory, 100 units, is \$1,500.

Then, we take that number, and drop it into our cost of goods sold calculation. We subtract out our ending inventory to give us cost of goods sold.

	Cost of Goods Sol	d Calcula	tion			
		Beginning	g Inventory	\$500		
	+ Cost	of Goods	Purchased	\$5400		
	= Good	ds Availal	ole for Sale	\$5900		
		- Ending	g Inventory	\$1500		
	=		Goods Sold	\$4400		
Beginn	ing Inventory and Purc	hases				
Date	Explanation	Units	Cost/Unit	Total Cost		
1/1	Beginning Inventory	50	\$10	\$500		
4/1	Purchase	150	\$12	\$1800		
7/1	Purchase	200	\$14	\$2800		
10/1	Purchase	50	\$16	\$800		
	Total	450		\$5900		
Ending	Ending Inventory*					
Date		Units	Cost/Unit	Total Cost		
10/1		50	\$16	\$800		
7/1		50	\$14	\$700		
	Total	100		\$1500		
*assum	e 100 units left in endi	na invent	orv			



To perform our cost of goods sold calculation, we started with our beginning inventory and added cost of goods purchased, to give us goods available for sale. We subtracted out ending inventory, which we calculated using FIFO, meaning the most recent purchases are the units that are assumed to be remaining in inventory.

#### **IN CONTEXT**

Consider the following table:

Beginning Inventory and Purchases				
Purchased	Units	Unit Cost	Total Cost	
Beginning Inventory	100	\$5	\$500	
September	120	\$6	\$720	
October	140	\$7	\$980	
November	130	\$8	\$1,040	

Units Available For Sale	490		\$3,240	
Ending Inventory				
Units on Hand	290	Cost of Units on Hand	\$	
Units Sold	200	Cost of Goods Sold	\$	

Using the FIFO method and the information in this table, what is the cost of units on hand and cost of goods sold during this period?

First, find the ending inventory. With FIFO, the ending inventory is going to be our newest units. We have 290 items on hand, which means we will take all 130 units from November, all 140 units from October, and 20 units from September:

November: 130 · \$8 = \$1,040 October: 140 · \$7 = \$980 September: 20 · \$6 = \$120

Ending Inventory: \$1,040 + \$980 + \$120 = \$2,140

The ending inventory, or cost of units on hand, for these 290 items is \$2,140. Now we can subtract this value from the goods available for sale to find the cost of goods sold.

The cost of goods sold using FIFO method is \$1,100.

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Units on Hand	290	Cost of Units on Hand	\$2,140	
November	130	\$8	\$1,040	

October	140	\$7	\$980
September	20	\$6	\$120
Units Sold	200	Cost of Goods Sold	1,100
September	100	\$6	\$600
Beginning Inventory	100	\$5	\$500

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#### **SUMMARY**

Today we learned about **FIFO**, First In First Out, which is an inventory valuation method that helps to provide information about cost of goods sold as well as ending inventory. Under FIFO, goods are assumed to be sold oldest to newest, so the oldest inventory items are sold first and the newer inventory items are what remains in ending inventory. We also performed a calculation of **cost of goods sold using FIFO**.

Source: Adapted from Sophia instructor Evan McLaughlin.