Short-Term Assets

Appendix 1: LIFO – FIFO Conversion

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Cost Flow Assumptions

As we have seen in Lesson 7, cost flow assumptions affect a number of financial numbers including net income and cash flows.

This makes it harder to compare financial performance of firms using different cost flow assumptions.

Therefore, we need a framework to convert financial statement numbers under a common cost flow assumption.

LIFO – FIFO Conversion

Beg. Inv. LIFO + Purchases – COGS LIFO = End. Inv. LIFO

Thus, Purchases = End. Inv. LIFO + COGS LIFO – Beg. Inv. LIFO

Beg. Inv. FIFO + Purchases – COGS FIFO = End. Inv. FIFO

Thus, Purchases = End. Inv. FIFO + COGS FIFO – Beg. Inv. FIFO

End. Inv. LIFO + COGS LIFO – Beg. Inv. LIFO = End. Inv. FIFO + COGS FIFO – Beg. Inv. FIFO

End. Inv. LIFO =
End. Inv. FIFO – End. LIFO Reserve

- Beg. Inv. LIFO
= – (Beg. Inv. FIFO - Beg. LIFO Reserve)

LIFO – FIFO Conversion

End. Inv. LIFO + COGS LIFO - Beg. Inv. LIFO = ~~End. Inv. FIFO~~ + COGS FIFO - ~~Beg. Inv. FIFO~~

= ~~End. Inv. FIFO~~ – End. LIFO Reserve

= ~~- Beg. Inv. FIFO~~ + Beg. LIFO Reserve

-End. LIFO Reserve + COGS LIFO + Beg. LIFO Reserve = COGS FIFO

COGS FIFO = COGS LIFO – Change in LIFO Reserve

Exercise: Cost Flow Assumptions

Calculate the cost of goods sold and ending inventory using LIFO and FIFO methods

	Units	Unit cost	Unit price
Beginning inventory	100	$5	
January sale	(80)		$8
February purchase	30	$6	
March purchase	40	$7	
Ending inventory	90		

Exercise: Cost Flow Assumptions

FIFO

Cost of goods sold:

80*$5 = $400 [It all comes from beginning inventory]

Ending inventory:

20*$5 [Remaining beginning inventory]
+ 30*$6 [February purchase]
+ 40*$7 [March purchase]
= $560

Exercise: Cost Flow Assumptions

LIFO

Cost of goods sold:

40*$7 [March purchase]
+ 30*$6 [February purchase]
+ 10*$5 [Beginning inventory]
= $510

Ending inventory:

90*$5 = $450 [Remaining beginning inventory]

Exercise: Cost Flow Assumptions

End. Inv. FIFO = $560

End. Inv. LIFO = $450

End. LIFO Reserve = End. Inv. FIFO - End. Inv. LIFO

= $110

Beg. Inv. FIFO = $500

Beg. Inv. LIFO = $500

Beg. LIFO Reserve = Beg. Inv. FIFO -Beg. Inv. LIFO

= $0

Exercise: Cost Flow Assumptions

COGS FIFO = COGS LIFO – Change in LIFO Reserve

= $510 – ($110 - $0)

= $400

Ford Inventories 2015

NOTE 8. INVENTORIES

All inventories are stated at the lower of cost and net realizable value. Cost for a substantial portion of U.S. inventories is determined on a last-in, first-out ("LIFO") basis. LIFO was used for 27% and 28% of total inventories at December 31, 2015 and 2014, respectively. Cost of other inventories is determined by costing methods that approximate a first-in, first-out ("FIFO") basis.

Inventories at December 31 were as follows (in millions):

	2015	2014
Raw materials, work-in-process, and supplies	$ 4,005	$ 3,859
Finished products	5,254	5,026
Total inventories under FIFO	9,259	8,885
LIFO adjustment	(940)	(1,015)
Total inventories	$ 8,319	$ 7,870

FIFO: Beg. Inventory = $8,885, End. Inventory = $9,259

LIFO: Beg. Inventory = $7,870, End. Inventory = $8,319

Beg. LIFO Reserve = $1,015, End. LIFO Reserve = $940