

LIFO Election Benefit Analysis Report for Sample Company, LLC For the 2019 Year End

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Overview

Pro Forma LIFO Calculation

In order to determine if a company is a good LIFO candidate and if a LIFO election is recommended, LIFO-PRO completes a pro forma LIFO calculation for the prior 20 years in our software using some or all of the following data:

- Sample Company's current period item detail report
- Sample Company's estimated product mix & inventory balances using client-provided and/or website data
- Historical Bureau of Labor Statistics (BLS) Consumer or Producer Price Index inflation data (CPI/PPI)

Requirement Criteria

Using the pro forma LIFO calculation results, the following criteria are tested to determine if a company is a good LIFO candidate and/or if a LIFO election is recommended:

- **20 year average annual inflation rate** - The estimated 20 year average annual inflation rate from the pro forma LIFO calculation must be greater than or equal to 1% for this requirement must be met. This criterion confirms that the historical inflation rate is indicative of creating material tax deferral benefits. Using historical Bureau of Labor Statistics (BLS) price data, LIFO-PRO performs a pro forma inflation calculation for the prior 20 years to determine the amount of inflation a company likely would have had during that time.
- **Periods calculated with inflation:** Inflation must be calculated in 11 or more of the 20 prior years in the pro forma LIFO calculation for this requirement to be met. This criterion confirms that there is a consistent pattern of inflation because most companies are better off electing LIFO only if they are likely to have more inflationary than deflationary periods.
- **Current period inflation rate:** The current period inflation rate from the pro forma LIFO calculation must be greater than or equal to 1% to satisfy this requirement. This criterion confirms that there will be a sufficient amount of tax deferral benefit for a company's first year on LIFO.

Recommendation Requirements

The requirements listed below determine if a company is a good LIFO candidate and if they should elect LIFO:

- **Good LIFO Candidate** - The 20 year average annual inflation rate and periods calculated with inflation criteria must be met for a determination to be made that a company is a good LIFO candidate. Meeting the two Good LIFO candidate criteria indicates the following:
 - Material tax benefit could have been recognized if LIFO was used in the past
 - Material tax benefit will likely be realized if LIFO is used now or in the future
- **LIFO Election Recommendation** - This recommendation is made by reviewing both historical & estimated current period LIFO calculation results. All three criteria listed above must be met for this recommendation to be made. A LIFO election recommendation indicates the following:
 - Material tax benefit could have been recognized if LIFO was used in the past
 - Material tax benefit will occur in the current period if LIFO is elected this year
 - Material tax benefit will likely be realized if LIFO is used in the future

Good LIFO Candidate & LFO Election Recommendation Requirements & Criteria

Requirement Description	Requirement Criteria	Good LIFO Candidate Requirement	LIFO Election Recommendation Requirement
20 Year Average Annual Inflation Rate	Greater than or Equal to 1%	✓	✓
Periods Calculated with Inflation	11 or More of 20 Years	✓	✓
Current Period Inflation Rate	Greater than or Equal to 1%		✓

Sample Company Pro Forma LIFO Calculation Summary Schedule

20 Year Pro Forma Results	
Description	Amount Rate
2019 Year End Current Year Cost	\$18,596,107
Estimated 2019 Year End LIFO Inventory Balance	\$12,867,342
Estimated 20 Year LIFO Reserve ('00 - '19)	\$5,728,765
Periods Calculated with Inflation	17 out of 20
3 Year Average Annual Inflation Rate	2.0%
5 Year Average Annual Inflation Rate	0.6%
10 Year Average Annual Inflation Rate	0.9%
20 Year Average Annual Inflation Rate	1.93%

2019 Year End Results Only	
Description	Amount Rate
2019 Year End Current Year Cost	\$18,596,107
Current Period Inflation Rate	2.21%
Estimated 2019 LIFO Inventory Balance	\$18,198,948
Estimated 2019 LIFO Expense/Reserve	\$397,159

Sample Company Good LIFO Candidate & LIFO Election Recommendation Summary

Criteria Description	Criteria Requirement	Result	Criteria Met
20 Year Average Annual Inflation Rate	Greater than or Equal to 1%	1.9%	Yes
Periods Calculated with Inflation	11 or more of 20 Years	17 of 20	Yes
Current Period Inflation Rate	Greater than or Equal to 1%	2.2%	Yes
	Good LIFO Candidate		Yes
	LIFO Election Recommended		Yes

Pro Forma LIFO Election Benefit Analysis Results & Recommendations

Results

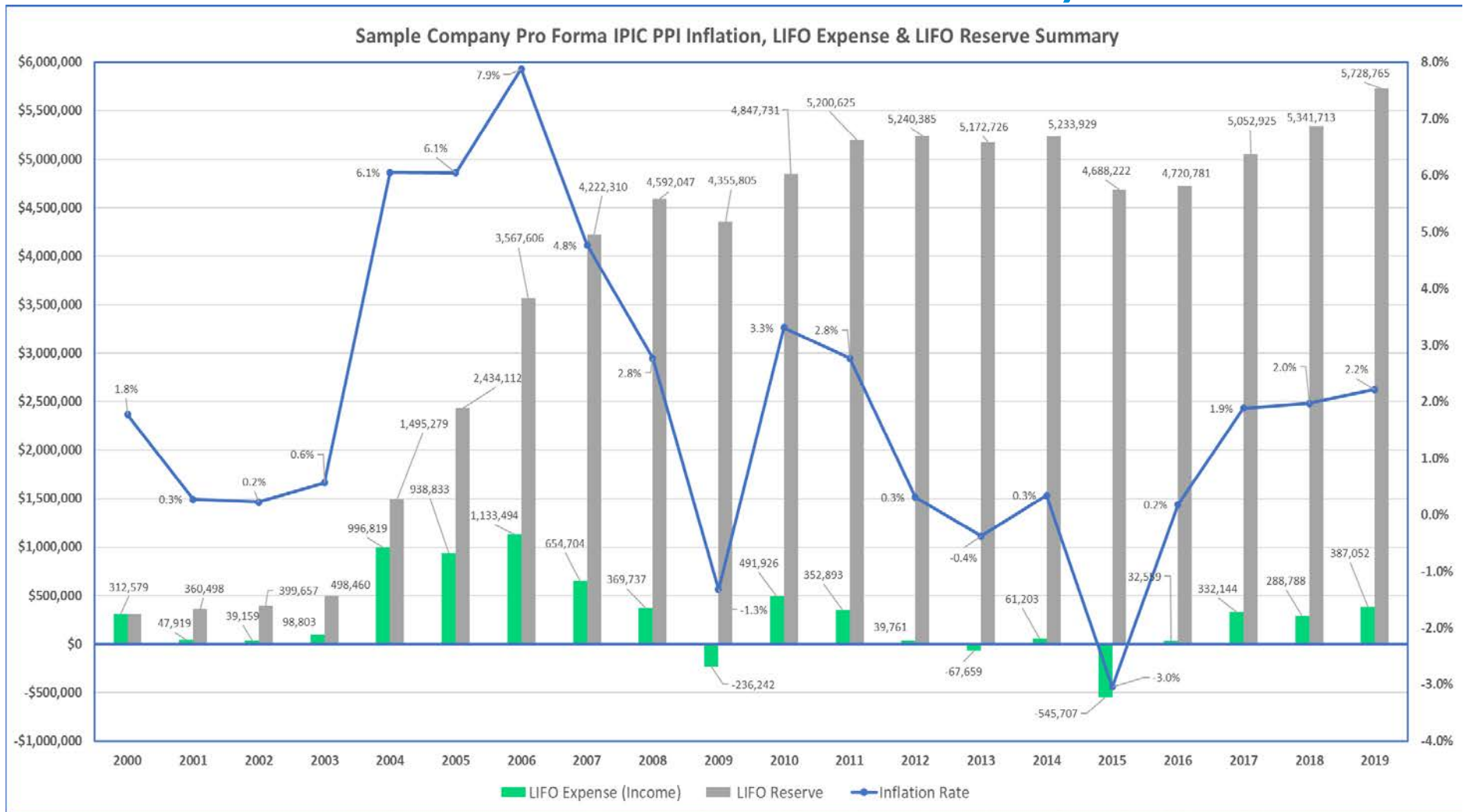
- **20 Year Pro Forma:** Assuming the same 2019 product mix & inventory balance of \$18,596,107 over a 20 year period, Sample Company's pro forma LIFO calculation resulted in a 20 year average annual inflation rate of 1.9%, inflation being calculated in 17 of 20 years & a cumulative LIFO reserve of \$5,728,765. These results are indicative of the historic inflation rates as well as the cumulative taxable income reduction that could occur over a 20 year period.
- **2019 Year End:** Sample Company's 2019 year end calculation resulted in a 2.2% inflation rate that created just under \$400,000 of LIFO expense. This represents the amount that taxable income would be decreased if the LIFO method were elected for the 2019 year end.

Recommendations

Based on the projected 2019 year end LIFO expense & pro forma LIFO calculation results, all criteria have been met for Sample Company to be considered a good LIFO candidate and for a 2019 year end LIFO election to be recommended.



Pro Forma LIFO Calculation Summary Chart



Amounts shown above are estimates and are not final figures

Sample Company’s pro forma calculation created inflation in 17 out of 20 years, resulting in a 20 year average annual inflation rate of 1.9%

Inflation Measurement Source – The LIFO calculation was made using the IPIC LIFO method & Bureau of Labor Statistics (BLS) Table 9 Producer Price Indexes (PPI). Under this method, appropriate BLS categories are assigned to all inventory items present at year end. LIFO-PRO made the appropriate BLS category assignments to Sample Company’s inventories & subsequently performed an IPIC LIFO calculation using 12 months PPI inflation indexes for each of the periods shown above.



Pro Forma LIFO Calculation Detail & Tax Savings Schedule

Sample Company Pro Forma LIFO Calculation Summary for the Periods Ended 12/31/2000 - 12/31/2019									
Period	Inflation Rate	Annual & Cumulative Taxable Income Reduction (Increase)		Income Tax Liability Reduction (Increase)					
		LIFO Expense (Income)	LIFO Reserve	21% Tax Rate		25% Tax Rate		30% Tax Rate	
				Current Period	All Periods	Current Period	All Periods	Current Period	All Periods
12/31/2000	1.8%	\$312,579	\$312,579	\$65,642	\$65,642	\$78,145	\$78,145	\$93,774	\$93,774
12/31/2001	0.3%	47,919	360,498	10,063	75,705	11,980	90,125	14,376	108,149
12/31/2002	0.2%	39,159	399,657	8,223	83,928	9,790	99,914	13,706	139,880
12/31/2003	0.6%	98,803	498,460	20,749	104,677	24,701	124,615	34,581	174,461
12/31/2004	6.1%	996,819	1,495,279	209,332	314,008	249,205	373,820	348,887	523,347
12/31/2005	6.1%	938,833	2,434,112	197,155	511,163	234,708	608,528	328,592	851,939
12/31/2006	7.9%	1,133,494	3,567,606	238,034	749,197	283,374	891,902	396,723	1,248,662
12/31/2007	4.8%	654,704	4,222,310	137,488	886,685	163,676	1,055,578	229,146	1,477,809
12/31/2008	2.8%	369,737	4,592,047	77,645	964,330	92,434	1,148,012	129,408	1,607,217
12/31/2009	-1.3%	-236,242	4,355,805	-49,611	914,719	-59,061	1,088,951	-82,685	1,524,532
12/31/2010	3.3%	491,926	4,847,731	103,305	1,018,024	122,982	1,211,933	172,174	1,696,706
12/31/2011	2.8%	352,893	5,200,625	74,108	1,092,131	88,223	1,300,156	123,513	1,820,219
12/31/2012	0.3%	39,761	5,240,385	8,350	1,100,481	9,940	1,310,096	13,916	1,834,135
12/31/2013	-0.4%	-67,659	5,172,726	-14,208	1,086,273	-16,915	1,293,182	-23,681	1,810,454
12/31/2014	0.3%	61,203	5,233,929	12,853	1,099,125	15,301	1,308,482	21,421	1,831,875
12/31/2015	-3.0%	-545,707	4,688,222	-114,599	984,527	-136,427	1,172,056	-190,998	1,640,878
12/31/2016	0.2%	32,559	4,720,781	6,837	991,364	8,140	1,180,195	11,395	1,652,273
12/31/2017	1.9%	332,144	5,052,925	69,750	1,061,114	83,036	1,263,231	116,250	1,768,524
12/31/2018	2.0%	288,788	5,341,713	60,646	1,121,760	72,197	1,335,428	101,076	1,869,600
12/31/2019	2.2%	\$387,052	\$5,728,765	\$81,281	\$1,203,041	\$96,763	\$1,432,191	\$135,468	\$2,005,068

Amounts shown above are estimates and are not final figures

Using Sample Company's 2019 product mix and inventory balance of \$18.6 million, a pro forma LIFO calculation was made to estimate the amount of inflation, annual LIFO expense and cumulative reserve that would have been created over the each of the past 20 years. The results are meant to provide a detailed estimate of the historical inflation trends and the potential tax savings that could occur in the future. The LIFO expense (income) represents the annual increase (decrease) to cost of goods sold resulting from the use of the LIFO method; this amount also represents the reduction to taxable income that occurred from using the LIFO method in a given year. The LIFO reserve represents the cumulative reduction to taxable income that has occurred for all years that the LIFO method has been used. A company's annual and cumulative LIFO tax savings amounts can be calculated as follows: Annual LIFO tax savings = LIFO expense * tax rate; Cumulative LIFO tax savings = LIFO reserve * tax rate.



Historical Inflation Summary

Sample Company BLS PPI Historical Inflation Rate Averages for Predominant Inventory Items					
PPI Commodity Code	102502	102504	1171	1175	11752201D
Bureau of Labor Statistics (BLS) Producer Price Index (PPI) Category Description / Inflation Measurement Period	Copper and brass mill shapes	Nickel and nickel- base alloy mill shapes	Wiring devices	Switchgear, switchboard, industrial controls equipment	Fuses and fuse equipment less than 2300 volts (excluding power distribution cut- outs)
Year to Date Apr. '20	-7.7%	-2.7%	0.6%	0.8%	0.8%
12 Months Ended Apr. '20	-12.2%	-3.8%	1.5%	2.2%	2.7%
12 Months Ended Dec '19	-0.2%	1.2%	1.9%	2.4%	3.5%
12 Months Ended Dec '18	-6.0%	2.5%	2.0%	2.4%	2.8%
12 Months Ended Dec '17	10.9%	9.5%	1.1%	1.5%	1.6%
12 Months Ended Dec '16	18.8%	7.9%	0.1%	-0.3%	-1.1%
12 Months Ended Dec '15	-18.8%	-10.9%	-1.5%	0.9%	0.2%
12 Months Ended Dec '14	-5.0%	4.5%	1.0%	-0.6%	-2.2%
12 Months Ended Dec '13	-5.6%	-15.2%	0.8%	2.1%	2.0%
12 Months Ended Dec '12	1.0%	-7.2%	2.6%	1.8%	0.5%
12 Months Ended Dec '11	-9.3%	-3.8%	3.5%	1.3%	0.6%
12 Months Ended Dec '10	11.0%	9.3%	2.8%	3.1%	1.4%
12 Months Ended Dec '09	44.1%	13.1%	-0.8%	0.9%	0.8%
12 Months Ended Dec '08	-23.7%	-16.0%	6.1%	4.9%	5.4%
12 Months Ended Dec '07	-3.8%	-3.8%	4.3%	3.5%	5.0%
12 Months Ended Dec '06	44.2%	27.1%	0.9%	7.0%	8.3%
12 Months Ended Dec '05	31.4%	23.9%	9.0%	4.2%	4.2%
12 Months Ended Dec '04	28.6%	14.3%	13.4%	3.6%	3.6%
12 Months Ended Dec '03	12.1%	1.9%	-0.6%	0.6%	0.6%
12 Months Ended Dec '02	-2.5%	-1.3%	0.5%	1.3%	1.3%
12 Months Ended Dec '01	-9.6%	-5.2%	-1.0%	2.1%	2.1%
12 Months Ended Dec '00	4.1%	12.0%	0.0%	1.5%	1.5%
3 Year Average Ended Dec. '19	1.3%	4.4%	1.7%	2.1%	2.6%
5 Year Average Ended Dec. '19	0.1%	-1.7%	0.7%	1.4%	1.4%
10 Year Average Ended Dec. '19	-0.9%	7.3%	1.4%	1.4%	0.9%
20 Year Average Ended Dec. '19	4.5%	1.4%	2.2%	2.2%	2.1%
Years with Inflation: '00 - '19	10 of 20	12 of 20	15 of 20	18 of 20	18 of 20

Source: Bureau of Labor Statistics (BLS) - Table 9 Producer Price Indexes (PPI)

Inflation rates shown above represent the BLS PPI Table 9 categories that correspond to the most predominant items in Sample Company's inventories.



Appendix A – How LIFO Works

Overview

The Last-in, First-out method, also known as the LIFO method, is one of the four cost flow assumptions allowed by U.S. GAAP & the IRS (FIFO, average cost & specific identification are the three other acceptable methods). LIFO matches current inventory costs against current sales to provide a better measure of earnings. When there's inflation, the effect of using LIFO is that the value of the most recently purchased, higher cost items are included in cost of goods sold while the older, lower cost goods remain in inventory. In other words, LIFO is designed to move some of the inflationary costs from the balance sheet (inventory) to the income statement (cost of goods sold).

The IRS Tax Court made the following statement about LIFO, "The theory behind LIFO is that income may be more accurately determined by matching current costs against current revenues, thereby eliminating from earnings any artificial profits resulting from inflationary increases in inventory costs. At the heart of the LIFO method is the principle that income is more clearly reflected by matching current costs with current revenues." The annual difference between inventory valued at LIFO vs. a non-LIFO method (i.e. FIFO, average cost) is known as LIFO expense (income if LIFO > non-LIFO method), and the cumulative difference is known as the LIFO reserve. The infographic shown below further illustrates the concept of how LIFO works:

Illustration 1. Effect of Inflation on the Balance Sheet & Income Statement



How LIFO Creates Real After-Tax Cash Savings

- More accurately reflects income by matching current costs against current revenues
- Eliminates artificial profits from earnings resulting from inflationary increases in inventory costs
- Transfers artificially inflated ending inventory values from the balance sheet to the income statement
- Increases cost of goods sold & reduces ending inventory balances in periods of inflation
- Reduces taxable income in periods of inflation & creates material long-term after-tax cash savings
- Inventories maintained at same costs historically used & annual side calculation made to adjust inventories at cost (i.e. FIFO or average cost) to LIFO cost using contra inventory account called LIFO reserve
- Subsequent period's LIFO benefits build upon those of the prior period (change in CY vs. PY LIFO reserve called LIFO expense (income); expense means CY vs. PY LIFO reserve increased. Income means reserve decreased.)
- Benefits grow in perpetuity & only decreases when there's deflation or substantial inventory liquidation

LIFO's Advantages & Disadvantages

Advantages

- Reduced tax liability in periods with inflation compared to non-LIFO methods (FIFO, average cost, earliest acquisitions, etc.)
- Represents an annuity that will grow over time as opposed to a one-time deduction
- Usually provides more long-term tax savings than other valuation reserves since it continues to grow (unlike LCM & obsolescence reserves that are reversed after the related items are sold/disposed of)
- Increases cash flow & ability to grow/reinvest
- One of the few prospective financial reporting accounting method changes (also treated prospectively for tax)

Disadvantages

- Making calculation manually is often complex, error-prone & often difficult to forecast
- Difficult to provide transparent reports to financial statement users when done manually
- LCM & other inventory reserves must be taken into income over a three-year period for tax purposes
- Deflation and/or significant inventory liquidations can cause increased taxable income (LIFO income)

Contrasting Inventory Costing & Dollar-Value LIFO

Inventory Costing

- Typically managed by an accounting database or system to track inventory-related activity (purchases, sales etc.)
- Dictates unit costs used to calculate beginning inventory balance, cost of goods sold & pre-LIFO calculation ending inventory balance (also known as current-year cost)
- Dollar-value LIFO users must continue valuing inventory at cost & perform LIFO adjustment separately
- FIFO & average cost most commonly used
- Applies to both periodic & perpetual inventory system users
- Only situation where unit costs would be maintained on LIFO basis is using a method called specific identification or "unit LIFO" (seldomly used)

Dollar-value LIFO

- End of reporting period side calculation that allows companies to be on LIFO while maintaining same costing method to track purchases, sales & inventory value
- Uses ending inventory balance at cost (i.e. FIFO or average cost) to compute indexes & variables for determining ending inventory at LIFO
- General ledger journal entry made to convert period end inventory balance from cost to LIFO
- Typically involves a debit to cost of goods sold & credit to LIFO reserve contra inventory account
- Unit costs tracked in accounting database remain unaffected after adjusting journal entry to convert inventory to LIFO from cost

How LIFO is Accounted For

For dollar-value LIFO method users, a company will continue tracking inventory costs within their accounting database using the same method that was used prior to adopting LIFO. This means that beginning inventory, purchases, sales & cost of goods sold recorded during the reporting period continues to be valued any of the available non-LIFO methods (i.e. FIFO, average cost, earliest acquisitions etc.). Illustration 2 below provides an example of common inventory activity occurring during the course of a reporting period using FIFO or average cost:

Illustration 2. Accounting for Inventory Activity Under LIFO – Year 1 on LIFO

2017 Year End Inventory Costing General Ledger Journal Entries						
Description	FIFO			Average Cost		
Beginning Inventory	5,000,000 units	\$5.50/unit	\$27,500,000	5,000,000 units	\$5.00/unit	\$25,000,000
	Account Name	Dr.	Cr.	Account Name	Dr.	Cr.
Purchase 8,000,000 units at \$6/unit	Inventory	48,000,000		Inventory	48,000,000	
	Accounts payable		48,000,000	Accounts payable		48,000,000
Sell 7,000,000 units at \$12/unit	Accounts receivable	84,000,000		Accounts receivable	84,000,000	
	Cost of goods sold	39,500,000		Cost of goods sold	39,307,692	
	Sales		84,000,000	Sales		84,000,000
	Inventory		39,500,000	Inventory		39,307,692
Ending Inventory	6,000,000 units	\$6.00/unit	\$36,000,000	6,000,000 units	\$5.62/unit	\$33,692,308

2017 Year End Balances Before LIFO Calculation			
FIFO		Average Cost	
Inventory		Inventory	
27,500,000		25,000,000	
48,000,000		48,000,000	
	39,500,000		39,307,692
36,000,000		33,692,308	
Cost of Goods Sold		Cost of Goods Sold	
-		-	
39,500,000		39,307,692	
39,500,000		39,307,692	
LIFO Reserve		LIFO Reserve	
	-		-
	-		-

The LIFO reserve contra account is shown with a zero balance because this example assumes that the company will be adopting LIFO for the 2017 year end. The main consideration is to realize that companies on LIFO continue using some non-LIFO method such as FIFO or average cost to account for current period inventory activity. Once the period has been closed and all inventory related activity has been posted, the side calculation to compute the required LIFO values can now be made. Once the current year index is computed, the ending inventory balance at cost (i.e. FIFO, average cost etc.) is used along with the current period inflation index to compute the current period LIFO inventory, LIFO expense & reserve values. Using the same inventory data from Illustration 2, an example is shown below of the period end side calculation made to compute the LIFO inventory, expense & reserve balances as well as the general ledger adjusting journal entry required to account for the difference between inventory at cost & LIFO (LIFO expense is the difference in cost of goods sold between LIFO vs. cost & is the difference between the current & prior period's LIFO reserve):



Illustration 3. LIFO Calculation & General Ledger Adjusting Journal Entry Year 1 on LIFO

2017 Year End LIFO Calculation Summary		
Description	FIFO	Average Cost
Current Period End Inventory Balance	\$36,000,000	\$33,692,308
Prior Period End Inventory Balance	27,500,000	25,000,000
Current Period Inflation Index	1.09	1.12
Current Period LIFO Inventory Balance	33,525,000	30,692,308
Current Period LIFO Reserve	2,475,000	3,000,000
Prior Period LIFO Reserve	-	-
Current Period LIFO Expense	\$ 2,475,000	\$ 3,000,000

2017 Year End Post LIFO Calculation Adjusting Journal Entry

Description	FIFO			Average Cost		
	Account Name	Dr.	Cr.	Account Name	Dr.	Cr.
Adjust ending inventory balance	Cost of Goods Sold	2,475,000		Cost of Goods Sold	3,000,000	
from FIFO or average cost to LIFO	LIFO Reserve		2,475,000	LIFO Reserve		3,000,000

As shown in the calculation summary above, the LIFO inventory balance is between \$2 - \$3 million less than the current period end inventory balance at cost. This difference represents the LIFO expense (current – prior period LIFO reserve) & LIFO reserve balances (inventory at cost – LIFO inventory). It also represents how LIFO transfers inflationary inventory costs from the balance sheet (inventory) to the income statement (cost of goods sold). The debits and credits in the journal entry shown above represent increases to both cost of goods sold and the LIFO reserve contra inventory account. Since the LIFO reserve account is a contra inventory account, ending inventory gross of LIFO reserve represents inventory at cost & while ending inventory net of LIFO reserve represents inventory at LIFO. The cost of goods sold account is essentially the vehicle that allows for LIFO taxpayers to reduce their taxable income. Using the data from the illustrations above, the example below shows the 2017 year end balances after the LIFO general ledger adjusting journal entry has been made:

Illustration 4. Post LIFO Calculation Inventory Balances Year 1 on LIFO

2017 Year End Balances After LIFO Calculation					
FIFO			Average Cost		
Inventory			Inventory		
27,500,000			25,000,000		
48,000,000			48,000,000		
	39,500,000			39,307,692	
FIFO	36,000,000		Average Cost	33,692,308	
Less: LIFO Reserve	(2,475,000)		Less: LIFO Reserve	(3,000,000)	
LIFO	33,525,000		LIFO	30,692,308	
Cost of Goods Sold			Cost of Goods Sold		
39,500,000			39,307,692		
2,475,000			3,000,000		
41,975,000			42,307,692		
LIFO Reserve			LIFO Reserve		
	-			-	
	2,475,000			3,000,000	
	2,475,000			3,000,000	



As shown above, the cost of goods sold account is now \$2 - \$3 million higher after the LIFO calculation. Aside from any other adjusting entries required after the LIFO calculation, this will be the amount used for financial reporting and tax purposes. Although the cost of goods sold account balance will be closed out after recording the closing entries, the LIFO reserve contra inventory account is a permanent account that will be carried forward into the next reporting period.

Using the data from the illustrations above, the examples shown below illustrate how inventory costs will be tracked when going from the first to the second reporting period on LIFO:

Illustration 5. Accounting for Inventory Activity Under LIFO - Year 2 on LIFO

2018 Year End Inventory Costing General Ledger Journal Entries						
Description	FIFO			Average Cost		
Beginning Inventory	6,000,000 units	\$6.00/unit	\$36,000,000	6,000,000 units	\$5.62/unit	\$33,692,308
	Account Name	Dr.	Cr.	Account Name	Dr.	Cr.
Purchase 7,000,000 units at \$7/unit	Inventory	49,000,000		Inventory	49,000,000	
	Accounts payable		49,000,000	Accounts payable		49,000,000
Sell 8,000,000 units @13/unit	Accounts receivable	104,000,000		Accounts receivable	104,000,000	
	Cost of goods sold	50,000,000		Cost of goods sold	50,887,574	
	Sales		104,000,000	Sales		104,000,000
	Inventory		50,000,000	Inventory		50,887,574
Ending Inventory	5,000,000 units	\$7.00/unit	\$35,000,000	5,000,000 units	\$6.36/unit	\$31,804,734

2018 Year End Balances Before LIFO Calculation			
FIFO		Average Cost	
Inventory			
36,000,000		33,692,308	
49,000,000		49,000,000	
	50,000,000		50,887,574
<u>35,000,000</u>		<u>31,804,734</u>	
Cost of Goods Sold			
-		-	
50,000,000		50,887,574	
<u>50,000,000</u>		<u>50,887,574</u>	
LIFO Reserve			
	2,475,000		3,000,000
	<u>2,475,000</u>		<u>3,000,000</u>

As shown above, beginning inventory, purchases, sales & cost of goods sold continue being valued at cost throughout the course of the second period on LIFO (will remain the case for all subsequent periods on LIFO). As explained earlier, the LIFO reserve contra inventory account remains in place because the beginning inventory balance net of LIFO reserve represents inventory at LIFO cost. The example below illustrates the year 2 LIFO calculation results along with the adjusting journal entries and post-LIFO calculation general ledger inventory balances:



Illustration 6. LIFO Calculation, General Ledger Adjusting Journal Entry & Account Balances – Year 2

2018 Year End LIFO Calculation Summary		
Description	FIFO	Average Cost
Current Period End Inventory Balance	\$35,000,000	\$31,804,734
Prior Period End Inventory Balance	36,000,000	33,692,308
Current Period Inflation Index	1.17	1.13
Current Period LIFO Inventory Balance	27,444,522	25,145,782
Current Period LIFO Reserve	7,555,478	6,658,952
Prior Period LIFO Reserve	2,475,000	3,000,000
Current Period LIFO Expense	\$ 5,080,478	\$ 3,658,952

2018 Year End Post LIFO Calculation Adjusting Journal Entry

Description	FIFO			Average Cost		
	Account Name	Dr.	Cr.	Account Name	Dr.	Cr.
Adjust ending inventory balance	Cost of Goods Sold	5,080,478		Cost of Goods Sold	3,658,952	
from FIFO or average cost to LIFO	LIFO Reserve		5,080,478	LIFO Reserve		3,658,952

As shown above, the current period LIFO calculation resulted in 17% & 13% inflation for each of the two calculations that resulted in approximately \$5 million & \$3.7 million of LIFO expense (increase to cost of goods sold). Although the LIFO inventory balance is the difference between ending inventory gross and net of the current period LIFO reserve, the LIFO expense is the difference between the current & prior period LIFO reserve and represents the current period increase to cost of goods sold. Using the data from the illustrations above, the example below shows the 2018 year end balances after the LIFO general ledger adjusting journal entry has been made:

2018 Year End Balances After LIFO Calculation

	FIFO			Average Cost	
	Inventory			Inventory	
	36,000,000			33,692,308	
	49,000,000			49,000,000	
		50,000,000			50,887,574
FIFO	35,000,000		Average Cost	31,804,734	
Less: LIFO Reserve	(7,555,478)		Less: LIFO Reserve	(6,658,952)	
LIFO	27,444,522		LIFO	25,145,782	
	Cost of Goods Sold			Cost of Goods Sold	
	50,000,000			50,887,574	
	5,080,478			3,658,952	
	55,080,478			54,546,526	
	LIFO Reserve			LIFO Reserve	
		2,475,000			3,000,000
		5,080,478			3,658,952
		7,555,478			6,658,952

How LIFO Reduces Taxable Income & Tax Liability

As illustrated above, the cost of goods sold account was increased in each of the two years shown and represents the vehicle for companies on LIFO to reduce their taxable income & tax liability. Using the 2018 year end (year 2) data from the illustrations above, the example below compares the differences in cost of goods sold, taxable income & federal income tax liability between LIFO, FIFO and average cost:

Illustration 7. Cost of Goods Sold, Taxable Income & Income Tax Liability Comparison

2018 Year End Taxable Income Comparison: FIFO, Avg. Cost & LIFO		
Description	FIFO	Average Cost
Beginning Inventory Balance	\$36,000,000	\$33,692,308
Inventory Purchases During Year	49,000,000	49,000,000
End of Year Inventory Balance at Cost	35,000,000	31,804,734
Cost of Goods Sold Before LIFO Calculation	50,000,000	50,887,574
Current Period LIFO Reserve	7,555,478	6,658,952
End of Year Inventory Balance at LIFO	27,444,522	25,145,782
Prior Period LIFO Reserve	2,475,000	3,000,000
Current Period LIFO Expense	5,080,478	3,658,952
Cost of Goods Sold After LIFO Calculation	55,080,478	54,546,526
LIFO vs Not on LIFO Taxable Income Reduction	5,080,478	3,658,952
LIFO vs Not on LIFO Income Tax Liability Reduction: 30% Rate	\$ 1,524,143	\$ 1,097,686

As shown above, there's a \$5 million & \$1.5 million reduction in taxable income & federal income tax liability when comparing a LIFO vs. non-LIFO taxpayer that uses FIFO as their current-year cost method. Similarly, there's a \$3.5 million & \$1.1 million reduction in taxable income & federal income tax liability when comparing a LIFO vs. non-LIFO taxpayer that uses average cost as their current-year cost method. It should be noted that this difference would also have been recognized in the first year on LIFO (prior period LIFO reserve amounts), and will recognition will continue in subsequent periods as long as there's inflation. Another important concept is the fact that current period LIFO reserve grew despite the current vs. prior period ending inventory balance at cost decreasing. A common misconception exists that inventory balances must increase for the LIFO reserve to grow, but this is not the case.

LIFO Election Requirements

Requirement	Financial Reporting	Tax
Opening (beginning) inventories must be valued at cost for a company's first year on LIFO	✓	✓
Ending inventories must be valued using FIFO, earliest acquisitions or average cost	✓	✓
Financial reporting LIFO election scope must be equal to or greater than Tax scope (i.e. goods on LIFO for tax purposes can not be greater than what is on LIFO for financial reporting)	✓	✓
Prior lower of cost or market writedowns must be restored over a three-year period		✓
Must be used for financial reporting & tax purposes for all periods beginning in year of election		✓
IRS Form 970 Application to Use LIFO Inventory Method & statement attachment must be filed with federal tax return in year of adoption		✓