

# Best LIFO Practices Methods Review Report for Sample Company

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## Overview

LIFO-PRO's Best LIFO Practices Methods Review determines the accuracy of a company's LIFO calculation, LIFO methods/submethods compliance with GAAP & IRS regulations and provides LIFO optimization and planning opportunities. The review points are listed by topic and are as follows:

**LIFO Calculation Review** – review of the following calculation variables and a reconciliation of the original versus corrected LIFO reserve

- Current-Year Cost Balance
- Current-Year Index
- Cumulative Deflator Index
- Current Year Inventory at Base
- Increase (decrease) at Base
- Increase (decrease) in LIFO cost
- Cumulative Inflator Index
- Decrement Pricing
- LIFO Inventory Balance
- LIFO Expense (income)
- LIFO Reserve
- IPIC LIFO Calculation – (if applicable):
  - Pool Index Calculation
  - PPI Index Accuracy
  - 10% Method Calculation
  - BLS Weight Accuracy
  - PPI Category Assignment
- §263A UNICAP Costs Calculation (if applicable):
  - LIFO Layer (decrement) Including UNICAP Costs
  - LIFO Inventory Balance Including UNICAP Costs

**LIFO Methods Review** – Review of the LIFO methods being used to confirm GAAP & IRS regulations compliance; includes review of the following:

- LIFO index computation method
- LIFO election scope
- Item definition method
- Inflation comparison period
- Current-year cost & layer valuation methods
- LIFO pooling method
- Inflation measurement source
- IPIC LIFO submethods (if applicable)

**Best LIFO Practices Review** - Advice on optimizing current LIFO calculation procedures, Tax LIFO deferral maximization and LIFO method/submethod planning opportunities

**Recommendations Summary** -

- Change Recommendations
- LIFO Calculation Error Correction Steps

**LIFO Calculation Review** - LIFO-PRO reviewed the LIFO layer history and current year LIFO calculation documentation excel files provided by Sample Company. The results of our findings were as follows:

- Current-Year Cost Balance – No errors were detected.
- Current-Year Index – No errors were detected.
- Cumulative Deflator Index – No errors were detected.
- Current Year Inventory at Base – No errors were detected.
- Increase (decrease) at Base – No errors were detected.
- Increase (decrease) in LIFO cost – No errors were detected.
- Cumulative Inflator Index - The cumulative inflator index used to price layers at base should be the same as the cumulative deflator index (index the current-year cost is divided into to calculate the inventory at base balance). For the years 2001, 2004, 2005, 2006, 2007, 2010 & 2011, the LIFO layers were calculated by multiplying the current year index times the layer at base which understates the layer because the current year index is always less than the cumulative index. An example of this error is 2001 for which the cumulative deflator index = 1.0402 but the cumulative inflator index used was .9943 rather than 1.0402.  $.9943 = 1.0402/1.0462$  which is the 2001 cumulative deflator index divided by the 2000 cumulative deflator index which is also the 2001 current inflation index. The LIFO balance in 2011 was understated by about \$3.2 million due to these errors. None of the LIFO layers that were priced with the current year index instead of the cumulative index remained at the end of 2016, so the net effect of this error on the 2016 LIFO inventory balance is zero.
- Decrement Pricing – The following decrement pricing errors were found:
  - 2015 decrement priced using cumulative deflator index – The 2015 decrement was priced using the 2015 cumulative deflator index instead of the 1994 base year index of 1.000 which would have been appropriate since there were no more recent years' layers remaining after 2014. This error caused an understatement of the 2015 LIFO inventory balance (overstatement of LIFO reserve) for this pool of \$844,023.
  - Other decrement calculation errors – Some of the decrements before 2015 were priced incorrectly which resulted in a \$1,143,117 2016 & 2017 LIFO inventory balances net overstatement (understatement of LIFO reserve). The net effect of this is and the \$844,023 error described above is a \$299,094 2016 & 2017 LIFO inventory balance net overstatement (understatement of LIFO reserve).
- LIFO Inventory Balance - \$299,094 misstatement (LIFO reserve understatement; due to decrement pricing calculation errors).
- LIFO Expense (income) – \$299,094 misstatement (LIFO reserve understatement; due to decrement pricing calculation errors).
- LIFO Reserve – \$299,094 misstatement (LIFO reserve understatement; due to decrement pricing calculation errors).
- **IPIC LIFO Calculation:**
  - Pool Index Calculation – No errors were detected.
  - PPI Index Accuracy – Wrong prior year inflation index used for 111405 Planting, seeding, and fertilizing machinery and attachments PPI category (correct index – 145.0; index used – 113.7). This caused a \$32,145 net LIFO reserve overstatement.
  - 10% Method Calculation – LIFO-PRO determined that an error was made by Sample Company by creating 10% groups for the 111409 Parts for farm machinery BLS PPI category. There are no year end FIFO balances assigned to this category, and IRS Regs. specify that BLS weights and PPI indexes should not be included in the pool index

calculation if these items are not represented in the year end inventory. This caused a \$13,202 net LIFO reserve understatement.

- BLS Weight Accuracy – Incorrect BLS Weights of Relative Importance used: Preliminary 2017 BLS weights were used, but IRS Regs. say that the Final 2016 BLS weights should be used for a company’s 12/2017 pool index calculation. This caused a net overstatement of \$23,159.
- PPI Category Assignment – Incorrect PPI category assigned to Lawn & Garden equipment inventories: \$3,275,892 of lawn & garden tractor inventory balances were assigned to the 111403 Farm-type (power take-off hp) wheel tractors (2/4-wheel drive) (with or without attachments) PPI category that should have been assigned to the 126607 Consumer riding lawn, garden, and snow equipment PPI category. This caused a net LIFO reserve understatement of \$15,558.
- **§263A UNICAP Costs Calculation:**
  - UNICAP Layer (decrement) – the 2005 LIFO layer including UNICAP costs amount was apparently inadvertently set equal to the 2015 year end LIFO calculations LIFO layer including UNICAP cost amount. No UNICAP costs should have been applied since there was a decrease in the 2016 y/e current-year cost balance when compared to the 2015 y/e balance. This caused a \$7,131,985 overstatement of the 2017 y/e LIFO layer including UNICAP (LIFO reserve understatement).
  - LIFO Inventory Balance Including UNICAP Costs – \$5,009,671 misstatement (LIFO reserve understatement; due to the error described above).

The LIFO Reserve understatements and overstatements that occurred from the errors described above are reconciled in the schedule below:

<b>Sample Company LIFO Reserve Reconciliation for the 12/31/17 Year End</b>		
<b>Review Point</b>	<b>Misstatement Type</b>	<b>LIFO Reserve Effect</b>
<b>LIFO Calculation:</b>		
Decrement Pricing	Understatement	\$299,094
<b>IPIC Method Calculation:</b>		
PPI Index Accuracy	Overstatement	32,145
10% Method Calculation	Understatement	13,202
BLS Weight Accuracy	Overstatement	23,159
PPI Category Assignment	Understatement	15,558
<b>§263A UNICAP Costs Calculation:</b>		
Layer (decrement) Inc. UNICAP Costs	Understatement	7,131,985
<b>LIFO Reserve Understatement Total</b>		<b>-\$7,404,535</b>
<b>Original 12/31/2017 LIFO Reserve</b>		<b>202,104,487</b>
<b>Corrected 12/31/17 LIFO Reserve</b>		<b>\$209,509,022</b>
Note: LIFO Reserve Effect amounts represent errors that were the originating cause of the LIFO reserve over/understatement; misstatement errors excluded from reconciliation to avoid double-counting		

## LIFO Methods Review

Sample Company LIFO Methods/Submethods Review Summary		
LIFO Method/Submethod Description	Method Elected	Method Used
<b>General Methods:</b>		
Year End Month	December	Same
Corporate Filing Status	S-Corporation	Same
Primary Business Activity	Equipment retailer	Same
§263A UNICAP costs capitalized?	Yes	Same
<b>LIFO Methods:</b>		
LIFO index computation method	Dollar value	Same
LIFO election scope	New equipment	Same
Item definition method	Individual Items	Same
Inflation comparison period	Double-Extension	Same
<b>Current-year cost &amp; layer valuation methods</b>	<b>Earliest Acquisitions</b>	<b>FIFO</b>
Inflation measurement source	IPIC PPI	Same
LIFO pooling method	IPIC Method	Same
Number of LIFO Pools	2	Same
Book & Tax LIFO Methods Same or Different	Same	Same
<b>IPIC LIFO Methods:</b>		
BLS Index/Table Selection	PPI Table 9	Same
Current/Prior Year Appropriate Index Months	March ÷ March	Same
Index Timeframe Selection	Final	Same
Weighted-average Pool Index Calculation	10% method	Same
Appropriate Month Selection Type	Annual Selection	Same

**Current year cost method used does not match method selected on IRS LIFO election forms** - Both the 1991 IRS Form 970 Election to Use LIFO Inventory Method and the 2004 IRS Form 3115 Change in Accounting Method filed to adopt the new IPIC LIFO Regs. specify that the earliest acquisitions current-year cost method is used, but the LIFO calculation documentation schedules current-year cost columns are all labelled as "FIFO balances".

All other LIFO methods and submethods used by Sample Company are the same methods originally elected for financial reporting and tax purposes, and are also all GAAP and IRS Regs. compliant.

## Best LIFO Practices Review

**LIFO election excludes used equipment** – The general train of thought is to have as much inventory as LIFO as possible because it leads to more tax savings. When an internal index method was used before the change in 1994 to the IPIC method, it probably was difficult to calculate LIFO indexes for used equipment and this may have been the reason LIFO was not elected for used equipment. When the IPIC method is used, inflation measurement is not a problem and the same PPI codes that are used for new equipment are also used for used equipment, so Sample Company should expand the LIFO election scope to also include used equipment. The 3/5/10 year PPI inflation averages for the 1114 Agricultural Machinery and equipment BLS PPI Category for the year ended 12/2017 were 1.0%, 1.2% and 2.1%, respectively, and the additional tax LIFO benefits from including the used equipment inventory would be material.

**The double-extension method is used** – This is not a reliable method to use to measure LIFO inflation because changes in the inventory mix can create big swings in LIFO income or expense which is not correlated to the inflation amount for that year.

**Mixed use of final and preliminary PPI indexes** - For the 2017 index calculation, PPI preliminary indexes were used for the 12/2016 indexes and PPI final indexes were used for the 12/2017 indexes. It is very impractical to use final indexes for IPIC method calculations because you have to wait 4 additional months for the indexes to be published especially since there should be the same amount of inflation over time using either final or preliminary indexes.

**LIFO calculation documentation & procedures are inadequate** – Sample Company's LIFO calculation procedures have caused a material LIFO reserve misstatement. If the IRS were to audit Sample Company, they may be forced to terminate their LIFO election due to inadequate books and records. It is recommended for Sample Company to outsource their LIFO calculation to LIFO-PRO.

## Recommendations Summary

### Change Recommendations:

- **Expand LIFO election scope to include used equipment inventories** – Sample Company should expand its LIFO election scope to include used equipment inventories by filing an IRS Form 970 Application to Use LIFO Inventory Method.
- **Switch from Double-extension to Link-chain method** - Sample Company should switch to the link-chain method which is much more commonly used and is a much more preferable method. The change from the double-extension to the link-chain method is automatic approval change number 62a, and requires a Form 3115 Change in Accounting Method to be filed. This change requires no §481A adjustment to be made as all LIFO method changes are made on a cutoff basis, meaning the switch to Link-chain would be made effective in the year that the IRS form is filed.
- **Switch from final to preliminary PPI indexes** - The IRS Regs. specify that either may be used but one or the other should be used consistently. A change to use preliminary indexes consistently going forward is an automatic approval change.
- **Switch current-year cost method from earliest acquisitions to FIFO** – This is an automatic approval change designated change number 57a.
- **Outsource LIFO calculation** – LIFO-PRO offers turnkey LIFO outsourcing solutions that allows companies to secure LIFO calculation services at affordable costs. Contact us to receive a cost estimate or to learn more about how our outsourcing services work.

### LIFO Calculation Error Correction Steps:

- **Cumulative Inflater Index Error** – This error is corrected by using the appropriate cumulative inflater index to price all LIFO layers
- **Decrement Pricing Error** – This error is corrected by using the appropriate cumulative deflator index to price all LIFO decrements
- **LIFO Inventory Balance Error** – Misstatement caused by LIFO UNICAP Layer error
- **LIFO Expense (Income)** – Misstatement caused by LIFO UNICAP Layer error
- **LIFO Reserve**- Misstatement caused by LIFO UNICAP Layer error
- **PPI Index Accuracy Error** – This error is corrected by substituting the original appropriate prior year index of 113.7 used with the correct index of 145.0 to calculate the 111405 Planting, seeding, and fertilizing machinery and attachments PPI category's current year inflation index
- **10% Method Calculation Error** – This error is corrected by excluding the 111409 Parts for farm machinery PPI category's BLS weights from the 10% method calculation

- **BLS Weight Accuracy** – This error is corrected by substituting the 2017 preliminary BLS weights with the 2016 final BLS weights of relative importance
- **PPI Category Assignment Error** – This error is corrected by assigning the 126607 Consumer riding lawn, garden, and snow equipment PPI category to all lawn & garden tractor inventories and using the 126607 PPI code's current/prior year PPI inflation indexes to compute the correct current year inflation index for these items
- **LIFO Layer Including UNICAP Costs Error** – This error is corrected by setting the 2005 LIFO layer including UNICAP costs equal to the 2005 LIFO layer excluding UNICAP costs

Once the LIFO calculation errors listed above are corrected, the misstatements listed in the LIFO Calculation Review section of this report will correct themselves, and the restated 12/31/2017 LIFO reserve amount will equal \$209,509,022.

### Turnkey LIFO Outsourcing Solutions

Want to enjoy reduced federal tax payments & improved cash flows from LIFO but want to avoid having to make the LIFO calculation? LIFO-PRO's turnkey outsourcing solutions deliver you all your LIFO needs at costs that are scaled to fit within your company's budget.

### Why Companies Outsource LIFO Calculations or Utilize LIFO Software

- Service and/or software benefits greatly outweigh the costs
- Lack of expertise to complete GAAP/IRS compliant LIFO calculation
- Internal controls risk caused by reliance on complicated spreadsheet formulas
- Audit risk from undetected LIFO calculation errors

Hundreds of companies and CPA firms utilize our [LIFO outsourcing solutions](#) or the [LIFO-PRO software](#) for turnkey LIFO solutions or automated LIFO calculation, documentation & reporting. Visit [lifopro.com](http://lifopro.com) to submit a [cost estimate request](#) for outsourcing your company's LIFO calculation or obtaining a LIFO-PRO software license today!

**Disclaimer:** LIFO-PRO compiled this report by reviewing Sample Company's LIFO documentation files and comparing their LIFO calculation results to those computed by the LIFO-PRO software. The findings and recommendations contained in this report rely upon calculations and documentation provided by third parties.