

# LIFO RESOURCE GUIDE

## FOR CPAs

NON-AUTO DEALER LIFO



*Prepared by*  
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## APPENDIXES :

### LIFO analysis tools:

- PPI & CPI index histories & charts available on [www.bls.gov](http://www.bls.gov) Web site
- PPI & CPI inflation histories & charts provided by LIFO-PRO
- Quick LIFO pro forma analysis template
- PPI categories maintenance Excel file database

Example showing how the Double Extension method can produce unexpected results

PPI categories template

Table of Contents for *Guide for Planning & Implementation for IPIC LIFO Method*

## **LIFO Opportunities Abound**

Opportunities abound for CPAs to help their clients with their LIFO inventory needs.

CPAs' responsibilities include financial reporting and tax compliance and optimization of accounting methods to provide maximum tax savings and efficient and error free computations.

Many accountants view the LIFO inventory method as a nuisance rather than an opportunity. LIFO is viewed as a nuisance because making the LIFO computations correctly can be time consuming and prone to error. Most CPAs lack the experience to assure the optimization of methods, accuracy of calculations and efficiency of making LIFO calculations.

Few CPAs, including Big 4 CPAs have enough clients using LIFO to develop expertise in this area. LIFO expertise is hard to achieve without on-the-job training because the IRS Regs. are written by tax lawyers and are difficult to understand and LIFO reference materials are generally poor. The only way to gain LIFO expertise is on-the-job training.

Virtually all LIFO situations provide opportunities for CPAs to provide valuable service to their clients because:

1. Optimum LIFO methods are seldom used and this presents opportunities for CPAs to increase their clients' tax savings and simplify their LIFO computational simplicity.
2. Compliance with IRS Regulations is seldom found yet full compliance is possible when IRS Regulations are understood by CPAs and LIFO methods are optimized.

There are also many companies not on LIFO that should be. Determining whether a company would benefit from using LIFO and implementing LIFO calculations can be simple if you know how to go about this.

## **Why LIFO methods are seldom optimized and computation errors are common**

Although the new IPIC method LIFO Regulations issued in 2002 simplified LIFO computations for many taxpayers, the LIFO Regs. are not simpler to understand. This is because: 1) the number of new rules and calculation methods increased in the new Regs. and 2) the Regs. are written by Washington IRS Accounting Methods lawyers for whom plain speaking seems to be a foreign language.

Aside from confusing IRS LIFO rules, one of the reasons LIFO errors are so common (we seldom review error free LIFO calculations) is that no one ever does enough LIFO calculations and IRS filings for enough different companies to develop expertise in this area sufficient to ensure full advantage is taken of the tax saving benefits of LIFO and to provide assurance that the calculations are correct. Even the "LIFO experts" at the large CPA firms are limited in hands-on experience because they concentrate mostly on accounting methods and compliance. The handful of written LIFO reference sources provides little help because they are written by college professors or accountants with little practical LIFO experience.

### **Reasons LIFO may be more beneficial in 2004 than in the past**

1. The IRS LIFO Regs. issued in 2002 increased from 80% to 100% the amount of PPI or CPI inflation taxpayers could use
2. The new Regs. elimination of the stage of production margin change adjustment requirement substantially reduces the volatility of LIFO indexes
3. The new Regs. provide for simpler calculations for most taxpayers
4. Rev. Proc. 2002-9 makes most LIFO method changes automatic approval changes
5. Inflation rates have increased for many goods in 2004

### **Who should use the LIFO method**

1. Profitable company or expectations of future profitability
2. Consistent inflation
3. Significant inventories

### **Common LIFO misconceptions**

1. **LIFO benefits will be minimal for companies with fast inventory turnover-** Inventory turnover rate is irrelevant; only the amount of FIFO inventory value and inflation impact the amount of LIFO expense.
2. **LIFO reserve increases require increasing FIFO inventory balances-** Unless FIFO values decrease significantly, the amount of inflation is a far more important determinant of LIFO expense than FIFO values and significant LIFO reserve increases are possible even with sizable FIFO inventory decreases.
3. **Low inflation rates will not produce significant LIFO benefits-** Consistent positive inflation can produce sizable LIFO benefits for companies with significant inventories. Sizable LIFO benefits are also possible for companies with small inventories for which there is consistently high inflation.
4. **Book and Tax LIFO methods need to be consistent-** This was true until the late 1970s but the IRS Regs. LIFO “conformity rule” was changed at that time to require only the conformity of the LIFO election scope(goods on LIFO). The Regs. specifically permit different book and tax LIFO methods.
5. **Valuation(Lower-of-Cost-or-Market) reserves provide as much or more benefit than LIFO-** If this seems to be true for a company, the reserving method would not likely pass muster with the IRS. Even if a LCM reserve may exceed the first year LIFO reserve, the LIFO reserve will grow with continued inflation regardless of FIFO value increases and this is not true of LCM reserves. LCM reserves must be taken into income when LIFO is adopted as a Section 481a adjustment but this is spread over 3 years. If the IPIC LIFO method is adopted, this provides taxpayers a “safe harbor” which prevents the IRS from challenging bad tax methods in pre-LIFO periods.

### **Opportunities for CPAs to improve clients' LIFO situations**

1. **Companies not using LIFO that should be-**There are many companies not on LIFO that should be because of lack of knowledge of expected tax savings and effort required to convert to LIFO.
2. **Partial LIFO election where inflationary goods are excluded-**LIFO should be used for all goods for which there is inflation.
3. **Using LIFO for goods with consistent deflation-**Partial LIFO terminations can solve this problem for some companies.
4. **Using of the Double Extension rather than the Link-Chain method-**The use of this method is rarely advisable and often produces LIFO inflation volatility and unexpected results. See example comparing Double Extension to Link-Chain method example.
5. **Use of the Internal index rather than the IPIC method-**The IPIC method is a better choice for almost all companies. See section describing the advantages of the IPIC method.
6. **Use of accounting software inventory modules' LIFO pricing option-**Doing this almost always guarantee lower LIFO benefits for a company. This is because LIFO is applied on a item-by-item basis(Unit method is the IRS term for this) in this type of application. Using Unit LIFO almost always substantially decreases LIFO tax savings because LIFO layer erosions(causing reduction of previous years' LIFO benefits) occur for every item each year there are fewer units on hand compared to the prior year because there is essentially a LIFO pool for each item. With the alternative Dollar Value LIFO(which informed companies use), pools are established for broad types of goods(and usually a single pool for manufacturers) so that increases and decreases in items on hand are netted together which results in fewer LIFO layer erosions.
7. **Too many LIFO pools are used-**The fewer the pools, the better to maximize tax savings and simplify the LIFO computations.
8. **Using pre-2002 IRS Regs. LIFO methodology-**This may not only be a compliance problem but could prevent maximum tax savings.
9. **Using CPI indexes when PPI indexes produce higher inflation-**This is an increasingly popular idea which has helped some retailers maximize their tax savings.
10. **Using discontinued PPI index categories-**The categories for which the Bureau of Labor Statistics compiles indexes change twice a year with 20% of the categories discontinued after December 2003, so the categories used must be reviewed annually.
11. **IPIC pool index calculation errors-**These errors are very common for companies who use more than a few PPI or CPI categories. Just obtaining these indexes can be an adventure.
12. **LIFO layer erosion calculation errors-**The longer a company is on LIFO, the more likely these errors will occur usually as a result of incorrect layer erosion computations.
13. **Using an incomplete "layers remaining only" LIFO layer history format-**Carryforward schedules that don't show the original FIFO balances, indexes and LIFO layer for years for which those layers have been subsequently eroded is a common problem.
14. **Incorrect Sec. 263a costs capitalized-**Proper integration of this computation with the LIFO layer history is required and the more years a company is on LIFO, the less likely errors are avoided.

### Advantages of using the IPIC LIFO method

1. **Higher inflation indexes possible**-Many companies have found PPI or CPI inflation rates to be consistently higher than their internal index inflation. An example of this is large supermarket chains for whom the CPI v. internal index difference has consistently been almost 2% for the past 10 years.
2. **Less volatility of LIFO inflation**-Many companies find PPI or CPI inflation rates to be less volatile than internal indexes. Two reasons for this are:1) PPI and CPI indexes reflect price changes for the entire U.S. and not a single company and 2) internal indexes are more reflective of raw materials prices and PPI or CPI indexes are more reflective of intermediate or finished goods prices and raw material prices are more volatile.
3. **Fewer pools possible**-The IPIC Regs. provide for establishment of pools by PPI or CPI Major Groups. Since this pooling method is optional and taxpayers can use other methods provided for in the Regs., taxpayer using the IPIC method are assured that the number of pools they use will be no greater than and may be less than alternative methods
4. **Index calculation simpler than internal indexes**-Use of a published index precludes the need to calculate an internal index unless companies switch for tax LIFO only. Internal index calculations are usually a major undertaking and can be avoided if companies switch for book LIFO also. The IPIC LIFO weighted average index calculations can also be complicated if done manually but this problem goes away with automated LIFO software.
5. **Easy way to switch from Double Extension**-The IRS has been reluctant to permit changes from this method to the Link-Chain method, especially for companies whose annual turnover of inventory items is not rapid. Taxpayers can make this change as an automatic approval change which does not require IRS consent when electing the Link-Chain method at the same time as a change to the IPIC method. Use of the Double Extension method invariably produces more volatile LIFO indexes than Link-Chain indexes, so it is important for most taxpayers using the Double Extension method to switch to the Link-Chain method.
6. **Cutoff method accounting change**-Prior year restatement of inventory balances is not required.
7. **IRS audit exposure reduced for past years**-Companies switching to the IPIC method are provided a "Safe Harbor" by the IRS with respect to methods used in years prior to the change. IRS audit exposure may be eliminated in these areas:
  - Statistical sampling** - Many companies use internal index sampling methods not acceptable to the IRS. For example, a company's sampling method may not give new items an equal chance for selection as the IRS requires.
  - Pooling** - Many companies use pooling methods not authorized by the IRS. Taxpayers may elect the optional IPIC pooling rules thereby establishing an acceptable pooling method.
  - Other** - Some manufacturers still use the components of cost method despite its prohibition by the IRS. Some manufacturers also incorrectly apply raw materials only indexes to total inventory dollars including labor and overhead dollars. Companies can eliminate exposure from use of these methods by adopting IPIC.

### **ABCs of quick LIFO analysis**

In most cases, it takes us very little time to determine whether a company is using the best LIFO methods or have made errors in past years' LIFO calculations. Shown below is an outline of steps we follow when analyzing companies' LIFO situations:

1. Review present methods from LIFO schedules, Forms 970 and 3115
2. Review prior year LIFO index computation schedule and LIFO layer history
3. Understand inventory products
4. Obtain FIFO inventory balances summary
5. Estimate current and prior year pro forma IPIC method LIFO indexes based on estimated breakdown of FIFO balances by PPI categories
6. Do analysis in stages to eliminate wasting time gathering more detailed inventory data than is necessary for each stage and don't proceed to next stage unless current stage results warrant proceeding to the next stage

### **How LIFO-PRO can help CPAs**

The ways LIFO-PRO, Inc. helps CPA firms and their clients include:

1. We make all necessary LIFO calculations and provide complete documentation to you or your clients with one day turnaround
2. We will sell your firm or your clients a license to use our LIFO-PRO software if you or they would prefer to make the LIFO calculations
3. We prepare the necessary IRS Forms 970 and 3115(a Form 3115 must be filed for all IPIC taxpayers for the mandatory changes required in the new Regs.) when
4. We perform a full range of LIFO consulting work such as LIFO adoption analysis and IPIC method implementation
5. We will make internal index method index calculations to determine whether this will produce higher inflation than IPIC method PPI index calculations using year end(current year and prior year) inventory valuation reports saved as Excel or text files
6. We provide LIFO training and our LIFO reference materials(we recently published IPIC method Guides for Planning & Implementation for several industries)

Whether a CPA firm wants to become more self sufficient in working with LIFO or wants to subcontract this work to us entirely, we can help a firm do either.

Reasons CPA firms use our LIFO software and services:

1. To provide absolute assurance of correct LIFO calculations
2. To provide assurance that your clients are using the LIFO methods that produce maximum tax savings
3. To gain access to the LIFO expertise of the one non-auto dealer LIFO only CPA in the U.S.
4. We provide firms a competitive advantage in this area without investment in substantial training time
5. We can enhance your firms profitability by providing high value services at a low cost

We are uniquely qualified to assist companies adopting the provisions of the new LIFO Regs. We, as the only company whose sole practice is non-auto dealer LIFO, provided substantial input to the IRS during the new LIFO Regs. drafting period and worked to ensure that some of the provisions of the preliminary Regs. that were harmful to taxpayers were changed in the final Regs.

Because we are a LIFO only practice, CPA firms can work with us without worrying about us competing with them.

### **LIFO success stories**

A medical equipment manufacturer was using internal index LIFO. They did not elect the IPIC method several years ago despite their Big 4 CPAs' recommendation because they believed the task of inventory sorting would be very time consuming. We visited their web site and saw that almost all of their inventory could be classified into a single PPI category. This allowed us to run pro forma IPIC calculations without any input from them other than their LIFO history schedule. The pro formas showed if they had used the IPIC Method they would have reduced their taxable income by an additional \$1 million for the current year and an additional \$5 million over the last ten years. They adopted the IPIC Method for tax purposes only.

A retail grocery chain used what we call Simplified Simplified LIFO for which a single index per pool is used and the pools are the standard grocery industry departments with a separate set of pools for each store. Some departments, amounting to about 15% of total inventory, were not on LIFO. We combined their pools into a single set of pools for each corporation and elected the IPIC pooling method. This resulted in using the minimum number of pools possible to maximize LIFO tax benefits (by minimizing LIFO layer erosions). We provided the client instructions to enable them to sort their FIFO inventory by the minimum number of CPI categories to meet IRS Regs. requirements. We expanded the LIFO election to include all goods, thereby increasing their LIFO tax savings.

A retail grocery chain used eleven pools corresponding to standard grocery business departments. We reduced the number of pools used and increase their tax savings by using the IPIC pooling method. The years were not labeled in the layer history except for the last two years. We referred to past years' CPI indexes (e.g., SAF Food at home was the single index used by the client for their Grocery pool) to identify the years corresponding to the layers history so that the old pools could be combined into six IPIC pools. We provided the client instructions to enable them to sort their FIFO inventory by the minimum number of CPI categories to meet IRS Regs. requirements. We also corrected numerous layer pricing errors in their layer history which were the result of calculating decrements incorrectly.

A convenience store chain using the IPIC method but used seven pools because they did not use the IPIC pooling method. We showed them they could reduce this to three pools and increase their tax savings by using the IPIC pooling method. The client used Retail LIFO and had recently experienced a large decrease in their LIFO expense because of increased margins. We recommended that they use Cost LIFO to eliminate the effect of margin changes on their LIFO expense. The client used one CPI index per pool. We provided the client instructions to enable them to sort their FIFO inventory by the minimum number of CPI categories to meet IRS Regs. requirements. Not all goods were on LIFO. We expanded their LIFO election to include all goods thereby increasing their tax savings. We also corrected numerous errors in the client's layer history which were caused by calculating decrements incorrectly.

A discount store chain switched to the IPIC method using PPI indexes two years ago. Their Big 4 CPAs had instructed them to sort their prescription and over-the-counter drugs into just two PPI categories, *063 Drugs and pharmaceuticals* and *063807 Vitamins, nutrients, and hematic preparations*. This was clearly incorrect as the client did not have any inventory that would be included in 063 (such as medicinal chemicals or veterinary preparations) except items that should be classified in the eight categories included in *0638 Pharmaceutical preparations*. We performed pro forma calculations that showed the client would get a significantly larger LIFO

A discount store chain switched to the IPIC method using PPI indexes two years ago. Their Big 4 CPAs had instructed them to sort their prescription and over-the-counter drugs into just two PPI categories, *063 Drugs and pharmaceuticals* and *063807 Vitamins, nutrients, and hematic preparations*. This was clearly incorrect as the client did not have any inventory that would be included in 063 (such as medicinal chemicals or veterinary preparations) except items that should be classified in the eight categories included in *0638 Pharmaceutical preparations*. We performed pro forma calculations that showed the client would get a significantly larger LIFO expense for the most recent year if they sorted their drug inventories properly into the 0638 PPI categories.

A recreational vehicle dealer was not using LIFO. We first ran pro forma LIFO calculations using the IPIC Method for the most recent year, which showed that the client would have a significant reduction of taxable income. We then performed pro forma calculations for the last ten years which showed that the client's inventory had consistently experienced inflation without a single year of deflation.

A foodservice distributor was not using LIFO. Food businesses are excellent candidates to use LIFO because almost all food categories have inflation over time. Using the current year inventory breakdown by PPI category, we ran do pro forma IPIC Method calculations for the previous ten years. As expected, the pro formas showed an average annual inflation rate of about 2%. The client adopted LIFO and was able to significantly reduce their taxable income.

A retail grocery chain used what we call Simplified Simplified LIFO for which a single index per pool was used and the pools were the standard grocery industry departments with a separate set of pools for each store. We combined their pools into a single set of pools for each corporation and elected the IPIC pooling method. This resulted in using the minimum number of pools possible to maximize LIFO tax benefits (by minimizing LIFO layer erosions). We provided the client instructions to enable them to sort their FIFO inventory by the minimum number CPI categories to meet IRS Regs. requirements.

A manufacturing company using Internal Indexes and Double Extension methods would have had a 10% decrease in their pool index despite having some inflation in their raw material costs. This would have wiped out their \$3 million LIFO reserve. Using a rough estimate of their most recent year end FIFO balances broken down by PPI category, we ran pro-forma IPIC method (Link-Chain) LIFO calculations for the past 10 years and this showed that, not only would they have LIFO inflation for this year end resulting in increasing their LIFO reserve by over \$1 million, but the LIFO inflation in past years would have been substantially higher using the IPIC and Link-Chain methods resulting in a LIFO reserve about \$5 million higher than the actual reserve. This set of facts is quite common for companies using Internal Indexes and Double Extension LIFO methods.

A publicly traded manufacturing company using Internal Indexes and Double Extension methods had a sizable LIFO reserve but the amount of LIFO expense or income varied greatly from year to year. For example there was LIFO expense of \$600,000 one year and \$700,000 LIFO income the next despite relatively stable FIFO balances and raw material

price inflation. We explained why we thought the use of Internal Indexes and Double Extension methods gave them a double whammy of volatility in indexes from year to year. We ran pro-forma calculations to show them that the big swings in LIFO expense from year to year would have been almost entirely avoided had they used the IPIC and Link-Chain methods in prior years.

A retail grocery client using IPIC and Link-Chain methods had a sizable LIFO reserve but the amount of LIFO expense or income varied greatly from year to year. For example there was LIFO expense of \$1,200,000 one year and \$900,000 LIFO income the next despite the fact that the average of CPI indexes used for supermarket chains has not been outside of the 1-3% annual inflation range for the past 15 years. Their volatility in LIFO indexes was caused by significant margin changes (about 2% which is significant for grocers) from one year to the next because they used the Retail LIFO method. We advised them to switch to the Cost LIFO method to avoid the margin change volatility because the new IRS IPIC Regs. issued in 2002 eliminated the requirement to adjust CPI inflation to reflect margin changes.

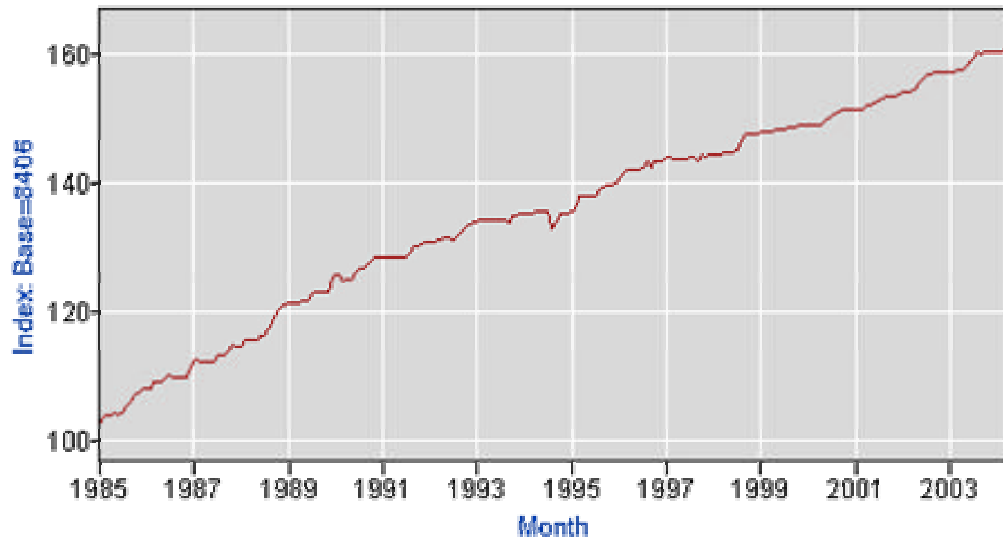
A home improvement products retailer used the IPIC method and CPI indexes. We advised them to switch to using PPI indexes because they were about 2% higher than CPI inflation and had been for several years. They did so and increase their tax savings considerably. They made this change for tax purposes only and now enjoy the best of both financial reporting and tax worlds, deflation for book LIFO and inflation for tax LIFO.

A company discovered they had overstated their Section 263a costs when they started using our LIFO-PRO software. They had improperly calculated the total Section 263a costs to be capitalized for some of the years for which they had LIFO layer erosions. LIFO taxpayers must integrate their Section 263a costs calculation with their LIFO layer history. The longer a company is on LIFO, the more likely errors of this nature occur.

We told a company they ought to elect LIFO because they had significant inventories and there was consistent inflation for their goods. They were reluctant to adopt LIFO because they thought their inventory levels would decrease because of inventory reduction initiatives and believed this would prevent growth of their LIFO reserve. We ran pro forma calculations to show them that their LIFO reserve could grow significantly without increases in their FIFO inventory balances.

**Example of PPI Inflation History Chart & Table Available on BLS.gov Web site**

<http://data.bls.gov/labjava/outside.jsp?survey=wp>

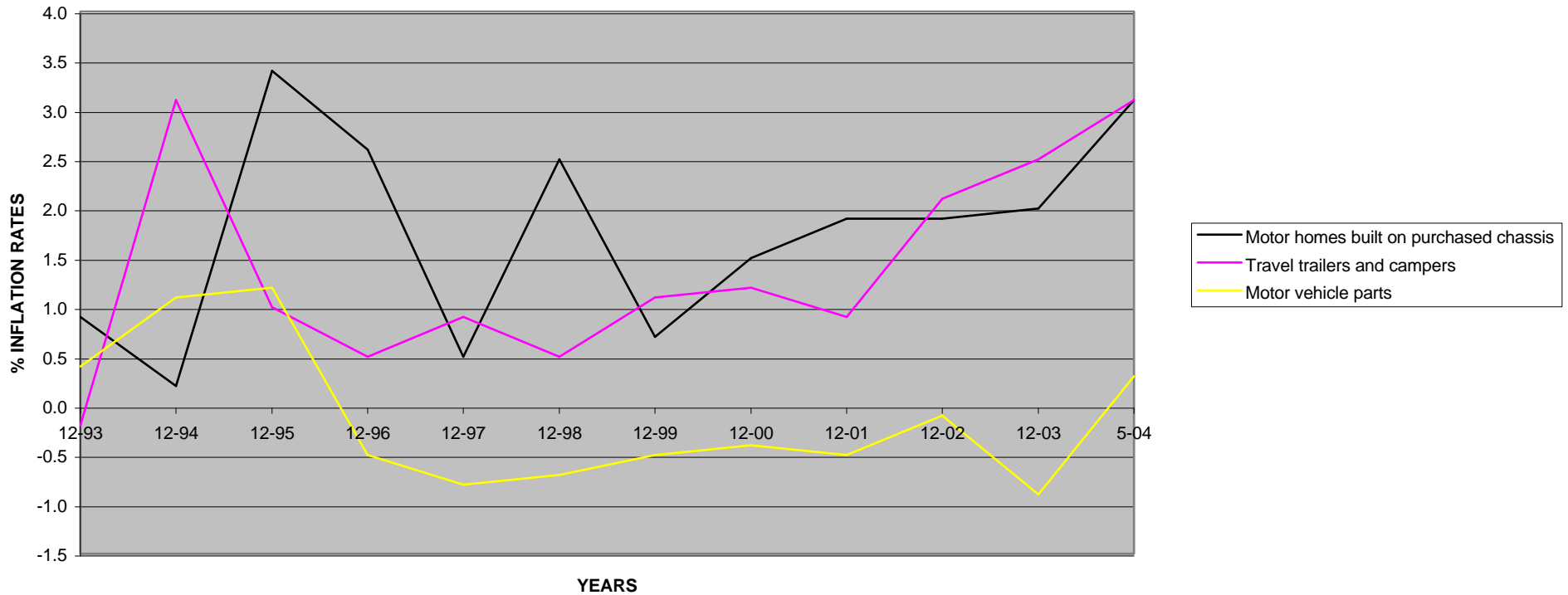


**Series Id:** WPU1415  
 Not Seasonally Adjusted  
**Group:** Transportation equipment  
**Item:** Motor homes built on purchased chassis  
**Base Date:** 8406

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1985	102.8	103.6	104.1	104.1	104.2	104.1	104.5	105.4	105.9	106.9	107.5	108.2
1986	108.1	108.1	109	109.1	109.1	109.8	110	109.8	109.8	109.9	109.9	110.9
1987	112.2	112.4	112	112	112	112	113.3	113.2	113.2	113.9	114.7	114.6
1988	114.6	115.5	115.7	115.7	115.7	116.1	116.1	117.4	118.2	119.9	120.7	120.8
1989	121.2	121.2	121.3	121.3	121.5	121.7	122.7	123.1	123	123	123.1	125.3
1990	125.6	125.6	124.6	125	125.2	126.1	126.9	126.9	127.4	127.6	128.4	128.5
1991	128.6	128.5	128.6	128.6	128.5	128.5	128.6	129.2	130.2	130.2	130.5	130.9
1992	130.9	130.8	131	131.1	131.5	131.5	131.2	131.8	132.6	133.3	133.4	133.9
1993	133.9	134.1	134.2	134.2	134.2	134.2	134.2	134.2	133.9	135	135	135.1
1994	135.4	135.4	135.4	135.5	135.5	135.7	135.7	133	134	135.3	135.3	135.4
1995	135.7	136.6	137.8	137.8	137.8	137.8	138.1	138.8	139.2	139.8	139.8	139.9
1996	140.7	141.4	141.9	141.9	141.9	141.9	142.5	143.3	142.3	143.4	143.4	143.4
1997	144	144	143.8	143.8	143.8	143.8	143.9	143.9	143.4	144.3	144.2	144.3
1998	144.3	144.3	144.5	144.8	144.9	144.9	145	146.9	147.7	147.9	147.9	147.9
1999	148.1	148.3	148.3	148.3	148.6	148.6	148.6	148.8	148.8	148.9	149.1	149.1
2000	149	149.2	149.3	149.3	150	150.1	150.5	151	151.3	151.5	151.5	151.5
2001	151.6	151.6	151.6	152.1	152.1	152.7	153	153.3	153.5	153.5	153.7	153.9
2002	154.1	154.1	154.1	154.6	155.6	156.4	156.9	157	157.3	157.4	157.4	157.4
2003	157.4	157.4	157.8	157.8	158.2	159.1	159.4	160.2	160.1	160.4	160.4	160.4
2004	160.4(P)	160.4(P)	160.7(P)	161.2(P)								

P : Preliminary. All indexes are subject to revision four months after original publication.

### PPI INDEXES INFLATION HISTORIES



Category #	Category name	100% OF PPI TABLE 6 INFLATION											11 yr. Avg.	Discon. Date	Start Date	
		12-93	12-94	12-95	12-96	12-97	12-98	12-99	12-00	12-01	12-02	12-03				5-04
1415	Motor homes built on purchased chassis	0.9	0.2	3.4	2.6	0.5	2.5	0.7	1.5	1.9	1.9	2.0	3.1	1.6		
1416	Travel trailers and campers	-0.2	3.1	1.0	0.5	0.9	0.5	1.1	1.2	0.9	2.1	2.5	3.1	1.2		
1412	Motor vehicle parts	0.4	1.1	1.2	-0.5	-0.8	-0.7	-0.5	-0.4	-0.5	-0.1	-0.9	0.3	-0.2		

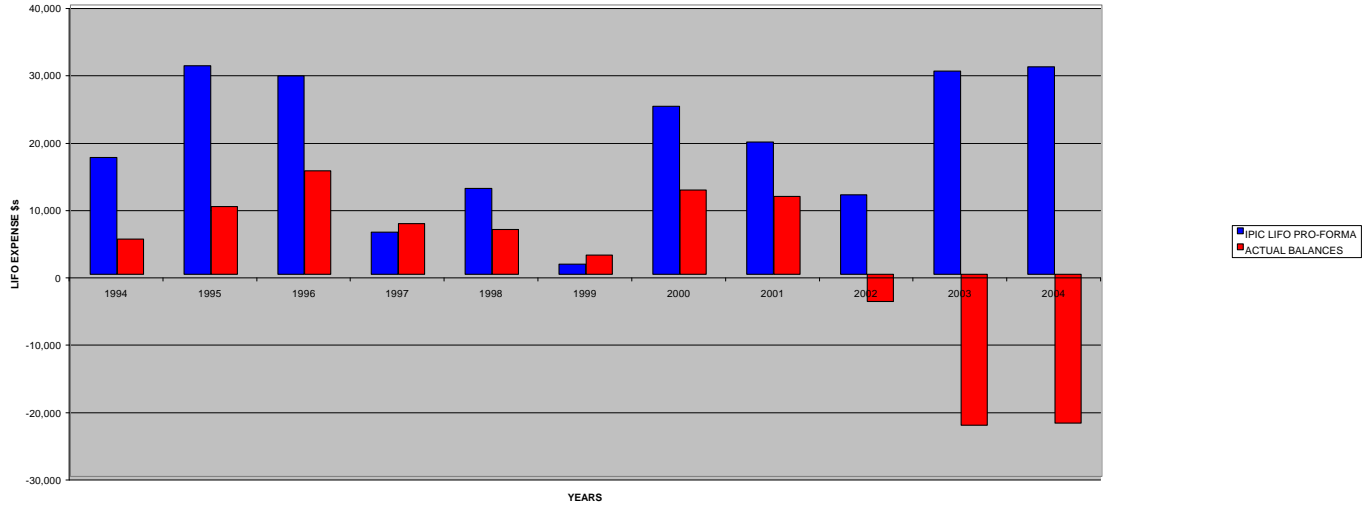
This is a PPI inflation history chart printed from the LIFO-PRO, Inc. PPI Inflation History file.

Inflation rates are automatically looked up and graphed based on the PPI codes entered in column A.

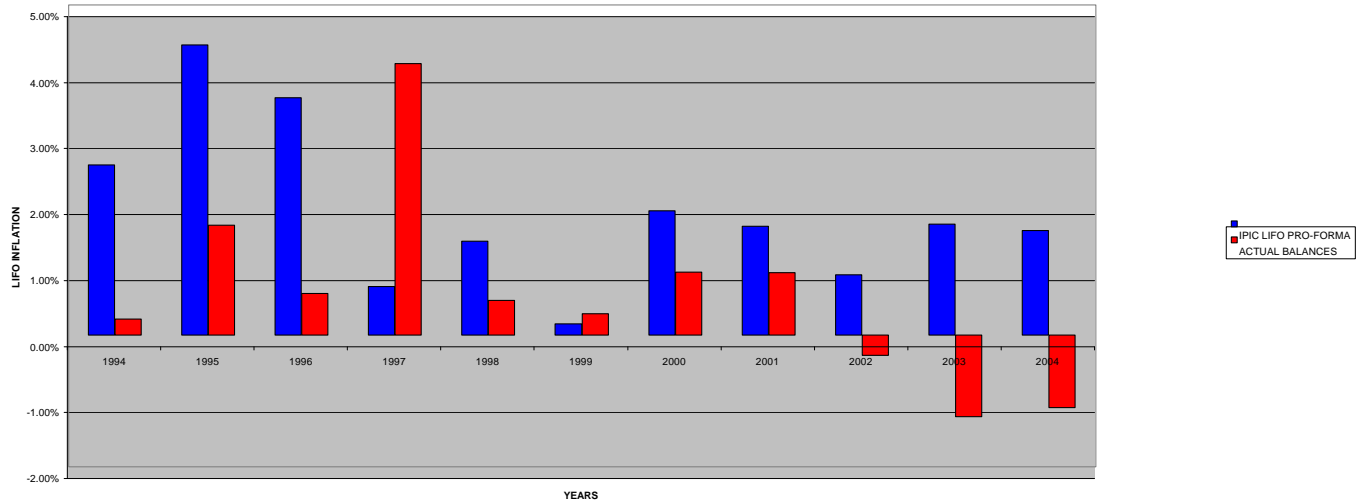


**SAMPLE COMPANY, INC.**  
**PRO-FORMA LIFO CALCULATIONS**  
**COMPARISON OF ACTUAL INTERNAL INDEX LIFO TO IPIC PPI METHOD**

**LIFO EXPENSE COMPARISON**



**LIFO INFLATION COMPARISON**

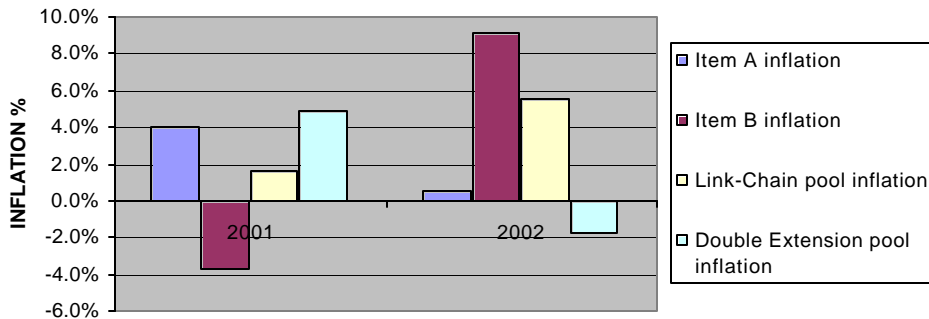


IPIC DATA INPUT SHEET FOR SAMPLE COMPANY		
FOR YEAR ENDED:DECEMBER, 2003		
BLS	YEAR-END	
CATEGORY	INVENTORY	
NUMBER	BALANCE	CATEGORY DESCRIPTION
01		FARM PRODUCTS
011		Fruits & melons, fresh/dry vegs. & nuts
0111		Fresh fruits and melons
011101		Citrus fruits
01110101		Grapefruits
01110104		Lemons
01110105		Valencia oranges
01110106		Navel oranges
01110108		Tangerines
01110109		Tangelos
011102		Other fruits and berries
01110202		Nectarines
01110203		Cherries
01110204		Apricots
01110205		Avocados
01110207		Pineapples
01110208		Granny Smith apples
01110209		Rome apples
01110211		Golden delicious apples
01110215		Red delicious apples
01110216		McIntosh apples
01110218		Table grapes
01110219		Peaches
01110221		Pears
01110222		Strawberries
01110224		Raspberries
01110225		Blackberries
01110226		Cranberries
01110227		Blueberries
011103		Melons
01110301		Cantaloupes
01110302		Honeydews
0113		Fresh and dry vegetables
011301		Dry vegetables
01130101		Dry pea beans
01130102		Dry pinto beans
01130103		Dry great northern beans
01130104		Dry pink beans
01130105		Dry peas
01130106		Dry lentils
011302		Fresh vegetables, except potatoes
01130211		Cabbage
01130212		Carrots
01130213		Celery

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	A	B	C	D	E	F	G	H
1	<b>COMPARISON OF CURRENT YEAR LIFO INFLATION INDEXES</b>							
2	<b>BETWEEN DOUBLE EXTENSION &amp; LINK CHAIN METHODS</b>							
3	<b>EXAMPLE 3</b>							
4								
5	Assumptions used:							
6	Inventory falls into 2 different PPI categories, 111303 & 101706							
7	Assume FIFO balances by PPI category shown on Rows 18 & 19(This is only thing that is different from other examples)							
8	Actual PPI indexes are shown on Rows 14 & 15							
9								
10								
11		<b>PPI Code</b>	<b>12/31/1982</b>	<b>12/31/1999</b>	<b>12/31/2000</b>	<b>12/31/2001</b>	<b>12/31/2002</b>	
12			Base year					
13	PPI indexes:							
14	Water systems	111303	100.5	131.2	132.5	137.8	138.5	
15	Steel pipe and tube	101706	95.7	104.4	106.0	102.1	111.4	
16								
17	Year end FIFO values:							
18	Water systems	111303			5,000	7,000	4,000	
19	Steel pipe and tube	101706			5,000	3,000	6,000	
20	Total				10,000	10,000	10,000	
21								
22	Calculation of Double Extension Cumulative Deflator Index:							
23	Water systems	111303			1.318	1.371	1.378	Row 14 2000 etc, index/1982 Col. C index
24	Steel pipe and tube	101706			1.108	1.067	1.164	Row 15 2000 etc, index/1982 Col. C index
25								
26	Calculation of Double Extension Inventory at Base:							
27	Water systems	111303			3,792.45	5,105.22	2,902.53	Row 18 FIFO/Row 23 cum. Deflator
28	Steel pipe and tube	101706			4,514.15	2,811.95	5,154.40	Row 19 FIFO/Row 24 cum. Deflator
29	Total				8,306.60	7,917.17	8,056.93	
30	Pool Cumulative Deflator Index-Double Extensior				1.204	1.263	1.241	Row 20 FIFO total/Row 29 Inv. At Base Total
31	Pool Current Year Deflator Index-Double Extension					1.049	0.983	Current Year Row 30/Prior Year Row 30
32								
33	Current Year PPI Category Indexes:							
34	Water systems	111303			1.010	1.040	1.005	Current Year Row 14/Prior Year Row 14
35	Steel pipe and tube	101706			1.015	0.963	1.091	Current Year Row 15/Prior Year Row 15
36								
37	FIFO at Prior Year Prices(Harmonic Extension):							
38	Water systems	111303			4,950.94	6,730.77	3,979.78	Row 18/Row 34
39	Steel pipe and tube	101706			4,924.53	3,114.59	5,499.10	Row 19/Row 35
40	Total				9,875.47	9,845.36	9,478.89	
41								
42	Pool Current Year Deflator Index-Link Chain					1.016	1.055	Row 20/Row 40
43								
44	Difference in Current Year LIFO Indexes					0.033	(0.072)	Row 31 - Row 42
45	Percentage difference					3.3%	-7.2%	
46								

### LINK-CHAIN V. DOUBLE EXTENSION INDEX COMPARISON



The purpose of this schedule is to show how the use of the Double Extension method can produce unexpected LIFO results.

For 2001, the Double Extension pool inflation is 4.9% which is higher than either of the two products' individual inflation rates of 4.0% and -3.7%. The Link-Chain pool inflation is 1.6%.

For 2002, the Double Extension pool inflation is -1.7% which is lower than either of the two products' individual inflation rates of 5% and 9.1%. The Link-Chain pool inflation is 5.5%.

IPIC DATA INPUT SHEET FOR SAMPLE COMPANY		
FOR YEAR ENDED:DECEMBER, 2003		
BLS	YEAR-END	
CATEGORY	INVENTORY	
NUMBER	BALANCE	CATEGORY DESCRIPTION
01		FARM PRODUCTS
011		Fruits & melons, fresh/dry vegs. & nuts
0111		Fresh fruits and melons
011101		Citrus fruits
01110101		Grapefruits
01110104		Lemons
01110105		Valencia oranges
01110106		Navel oranges
01110108		Tangerines
01110109		Tangelos
011102		Other fruits and berries
01110202		Nectarines
01110203		Cherries
01110204		Apricots
01110205		Avocados
01110207		Pineapples
01110208		Granny Smith apples
01110209		Rome apples
01110211		Golden delicious apples
01110215		Red delicious apples
01110216		McIntosh apples
01110218		Table grapes
01110219		Peaches
01110221		Pears
01110222		Strawberries
01110224		Raspberries
01110225		Blackberries
01110226		Cranberries
01110227		Blueberries
011103		Melons
01110301		Cantaloupes
01110302		Honeydews
0113		Fresh and dry vegetables
011301		Dry vegetables
01130101		Dry pea beans
01130102		Dry pinto beans
01130103		Dry great northern beans
01130104		Dry pink beans
01130105		Dry peas
01130106		Dry lentils
011302		Fresh vegetables, except potatoes
01130211		Cabbage
01130212		Carrots
01130213		Celery

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