

2022 LIFO Lookout & Opportunities Guide

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LIFOPro
Software & Turnkey Outsourcing Solutions



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About Us

- Leading LIFO subject matter experts, 3rd party service provider & software vendor
- **Provide a complete range of LIFO offerings, including:**
 - **Turnkey outsourcing solutions**
 - Companies directly engage with LIFOPro to serve as their 3rd party LIFO service provider & subject matter expert
 - CPA firms refer their clients to LIFOPro or directly engage with LIFOPro to outsource their client's LIFO calculation at wholesale rate & resell them at retail fee levels to clients
 - CPA firms rely on LIFOPro to offer complimentary, comprehensive resources & training to ensure all their clients LIFO needs are fulfilled
 - **Software**
 - Works for all dollar-value LIFO calculations other than alternative LIFO method inflation calculations for auto dealers
 - Completely automates inflation calculation, LIFO reserve calculation & documentation
 - Licensed directly to both companies & CPA firms
- Have companies of all sizes & industries with inventory balances as low as \$500K & high as \$20B
- **Notable clients include:**
 - Walmart
 - Kroger
 - Target
 - Kimberly Clark
 - General Mills



Recent LIFO Developments

- **LIFO Related Congressional Updates**

- **No current general threats to LIFO on Capitol Hill**
- **H.R. 7832/S. 4105 – Supply Chain Disruptions Relief Act**
 - This bill was drafted to provide tax relief to new motor vehicle dealerships using the LIFO method who had qualified inventory liquidations solely attributable to supply chain disruptions that occurred between 2020 – 2021, which in turn caused LIFO recapture & increased tax liabilities to be recognized during this period.
 - This bill works in conjunction with IRS Reg. §473, which is a preexisting regulation that was originally codified in 1980 to provide relief to taxpayers suffering qualified inventory interruptions as a result of the 1979 oil embargo.
 - Has passed in the Senate & now awaits final approval to occur in House & enactment by President Biden
 - Relief will likely be provided by filing accounting method change in the form of a Sec. 481a adjustment equal to the qualified liquidations that occurred between 2020 – 2021 & will be obtained by reporting this adjustment on the 2022 year end tax return
 - Learn about the implications of this bill for dealerships here: [About the Supply Chain Disruptions Act](#)
- **S.4768 – Taxing Big Oil Profiteers Act**
 - Would eliminate LIFO for companies with gross receipts of > \$1B whose primary trade/business is oil & natural gas production, refining, processing, transportation or distribution
 - According to LIFO lobbying group (LIFO Coalition), this bill poses a low threat because it's unlikely to pass during lame duck session

- **IRS LIFO Records Practice Unit**

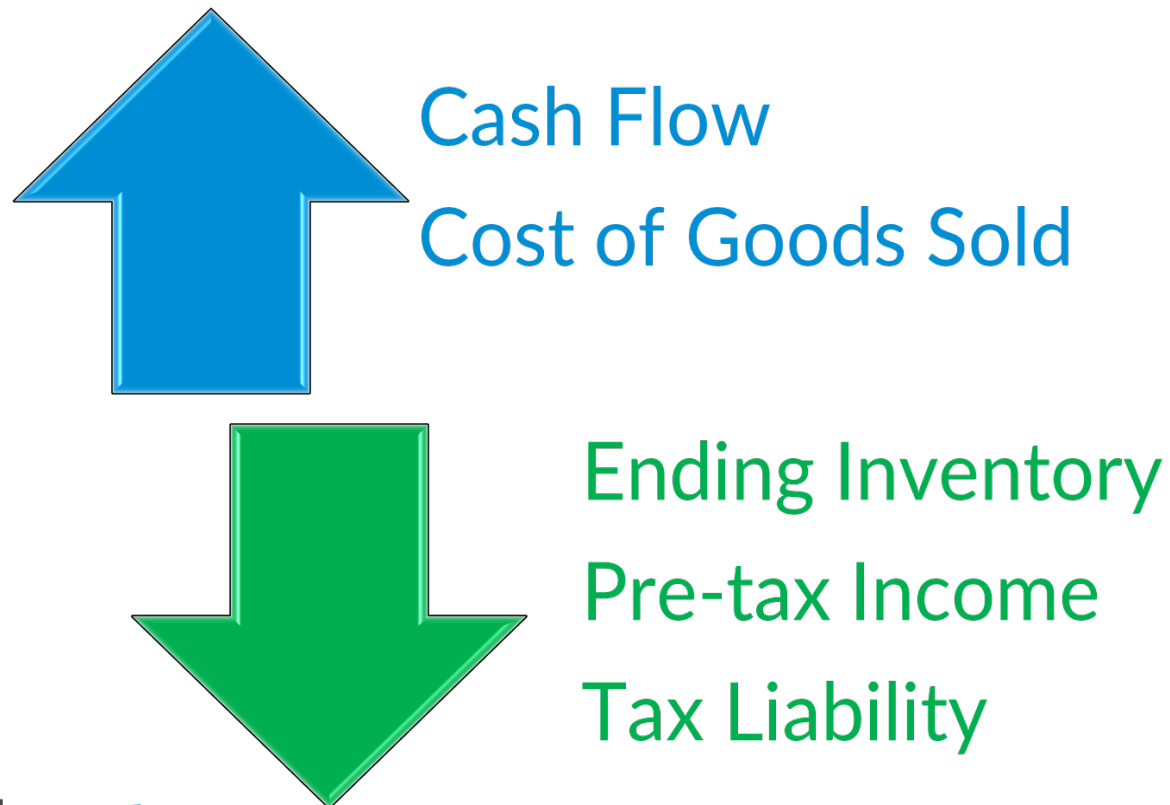
- Released in 2021 & LIFOPro has seen an increase in IRS LIFO audits within our client-base following its release
- Emphasizes importance of maintaining detailed inventory records for all periods on LIFO to support inflation calculation
- New focus on LIFO records compliance increases importance of maintaining adequate LIFO books & records
- View the IRS Practice Unit Here: [IRS LIFO Records Practice Unit](#)



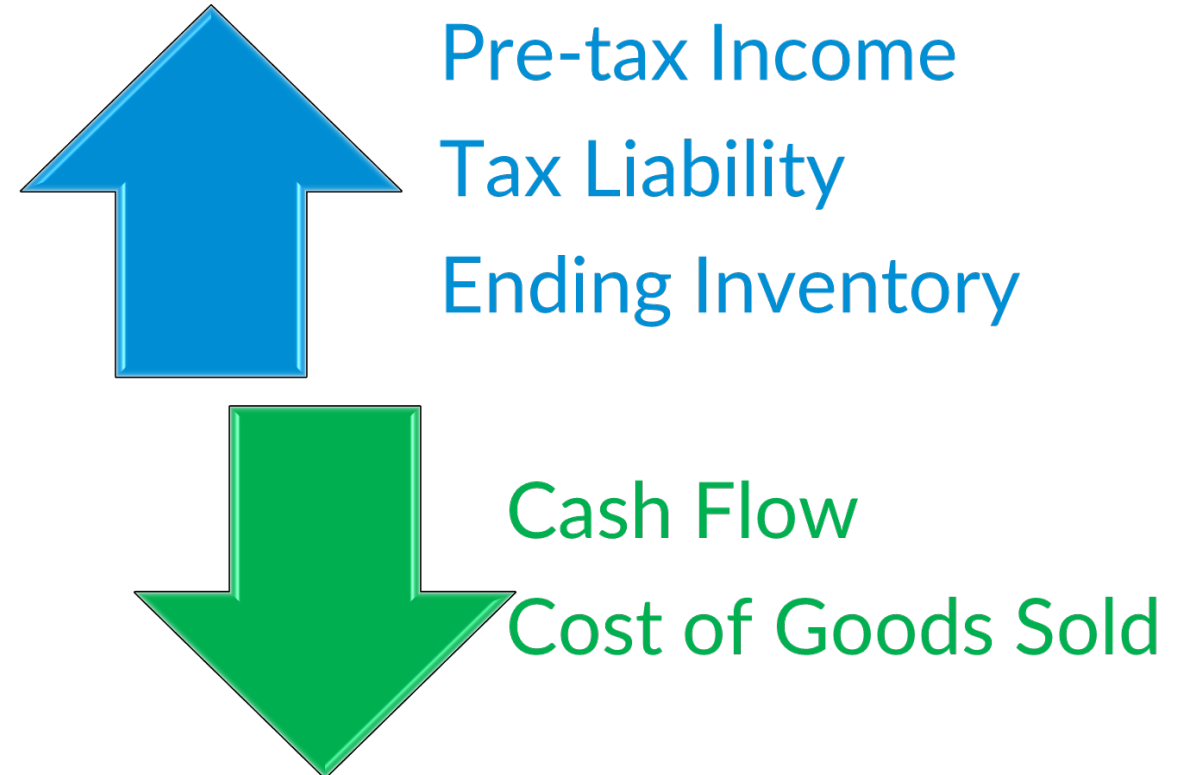
How LIFO Works

Effect of Inflation on Financial Statements & Tax Return

With LIFO



Without LIFO



Why Use LIFO?

• Tax Benefits

- **LIFO often creates material long-term tax deferral/savings:** Not just a one-time tax benefit or timing difference between book & tax such as straight-line vs. accelerated depreciation
- **During periods of rising costs, LIFO:**
 - Provides more after-tax free cash flow than non-LIFO methods when there's inflation
 - Ensures taxes aren't paid on goods that have been purchased, but have yet to be sold
 - Improves ability to replenish & maintain an adequate level of inventory
- Some consider LIFO to act as a tax deferral tool that can be thought of as an interest-free loan
- Others believe that LIFO essentially acts as a permanent form of tax savings if a company is profitable, satisfies the going concern assumption & intends to stay on LIFO in perpetuity
- **Tax Court opinion regarding LIFO (see Amity Leather vs. Commissioner):**

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.

• Preferable accounting method

- LIFO is an accounting method permissible under GAAP, not just a tax incentive
- During periods of rising costs, income is most clearly reflected by matching current costs with current revenues
- Provides a more conservative measure of income compared to non-LIFO methods during periods of rising costs.

• Acts as a mechanism that's similar in nature to nominal to real GDP adjustment

- When there's inflation, portion of ending inventory balance is transferred to COGS to normalize reported income & tax liability
- Isn't a tax loophole that always provides a benefit since deflation causes LIFO recapture or additional income to be recognized



Why Use LIFO?

LIFO Cost/Benefit Case Study: Building Products Manufacturer

Company Overview

- Years on LIFO: 6 (2017 = 1st year on LIFO)
- 2022 y/e inventory balance @ Cost: \$15M
- 2022 y/e inventory balance @ LIFO: \$12.1M
- Combined federal + state tax rate: 30%
- Interest rate on debt: 6%
- 2022 y/e LIFO reserve: \$2.9M

Benefits

- **Cumulative after-tax savings:**

2022 y/e LIFO reserve * tax rate = $\$2.9\text{M} * 30\% = \860K

- **Savings on interest expense:**

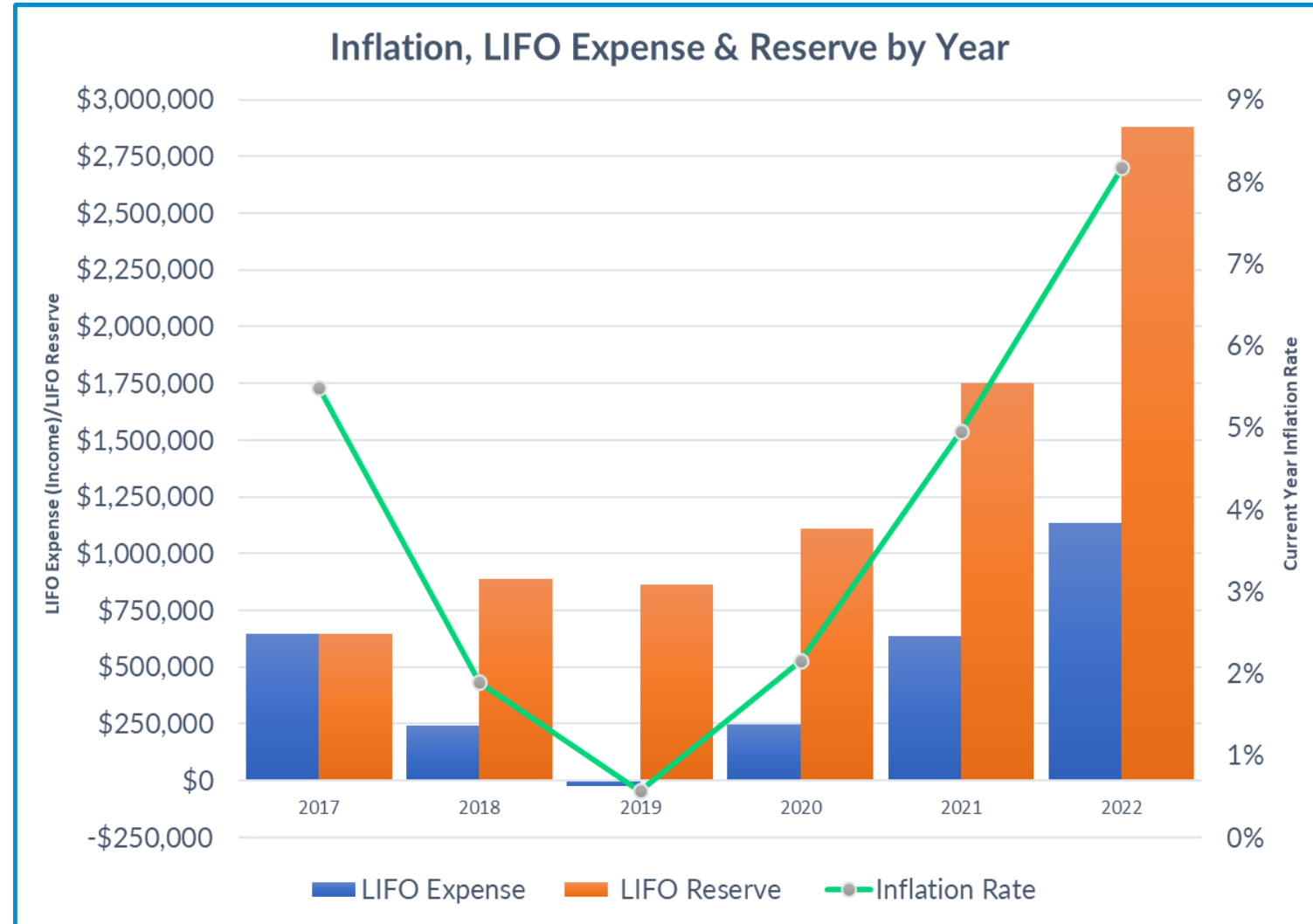
Cumulative after-tax savings * interest rate on debt
= $\$860\text{K} * 6\% = \52K

Costs

- First year fee including IRS forms prep (2017): \$5K
- Recurring annual outsourcing fee: \$2,500 (years 2 - 6)
- **Cumulative outsourcing costs: \$17,500**

Cost as a percentage of after-tax savings:

$\$17,500 \div \$860\text{K} = 2\%$



Common LIFO Misconceptions

- **Misconception #1: The following burdens & costs outweigh the benefits of LIFO:**
 - Management, cost accounting & purchasing/sales functions & responsibilities will be complicated by using LIFO
 - Wholesale changes must be made to accounting system since item costs & the physical flow of goods must be tracked on a LIFO basis
 - **Clarifications**
 - Under the dollar-value method, the LIFO value of inventory is determined outside of the accounting system & a top-side accounting entry is recorded to adjust ending inventory from cost to LIFO & accrue the change in the LIFO reserve
 - Under dollar-value LIFO, item costs remain being tracked the same way they did prior to electing LIFO & requires no changes to the accounting system other than adding a contra-inventory subledger account called the LIFO reserve
- **Misconception #2**
 - Employee compensation & bonuses will be complicated from using LIFO
 - **Clarification:** Internal management reports can be presented on a non-LIFO basis as long as they're not shared externally with third parties
- **Misconception #3: Tax savings from LIFO will be minimal because:**
 - **High inventory turnover or new item rates**
 - **Just in time inventory or lean accounting practices**
 - **Clarifications**
 - Under the dollar-value method, the inflation rate used to calculate the LIFO reserve change is based on a 12 month comparison of current vs. prior year's item/unit costs extended by quantities on hand in ending inventory regardless of the turnover ratio
 - External indexes reconstruct inflation on new items, which ensures the same amount of inflation is applied to new & preexisting items
 - Manufacturers will always have raw materials & WIP; wholesalers/distributors & retailers still must maintain adequate base stock
- **Misconception #4: Internal costs must be used to measure LIFO inflation**
 - **Clarification:** External indexes such as the BLS CPI/PPI can be used to measure inflation, thereby minimizing reliance on accounting information systems



LIFO Misconceptions: Clarifying LIFO Reserve Changes

- 12/31/21 LIFO Calculation Summary (last year closed)

- Prior year end inventory balance at cost (FIFO): \$28.1M
- Prior year end inventory balance at LIFO: \$25M
- Prior year end LIFO reserve: \$3.1M

- Clarifications

- In most cases, material LIFO recapture only occurs when there is either substantial deflation and/or substantial inventory liquidations
- When there's inflation, LIFO reserve can increase even when current vs. prior year inventory balances decrease

12/31/2022 Year End Interim Estimate: LIFO Projections Report

Next Year LIFO Expense (Income) Resulting From Current Year Inflation Rates & Inventory Balance at Cost Values Shown Below

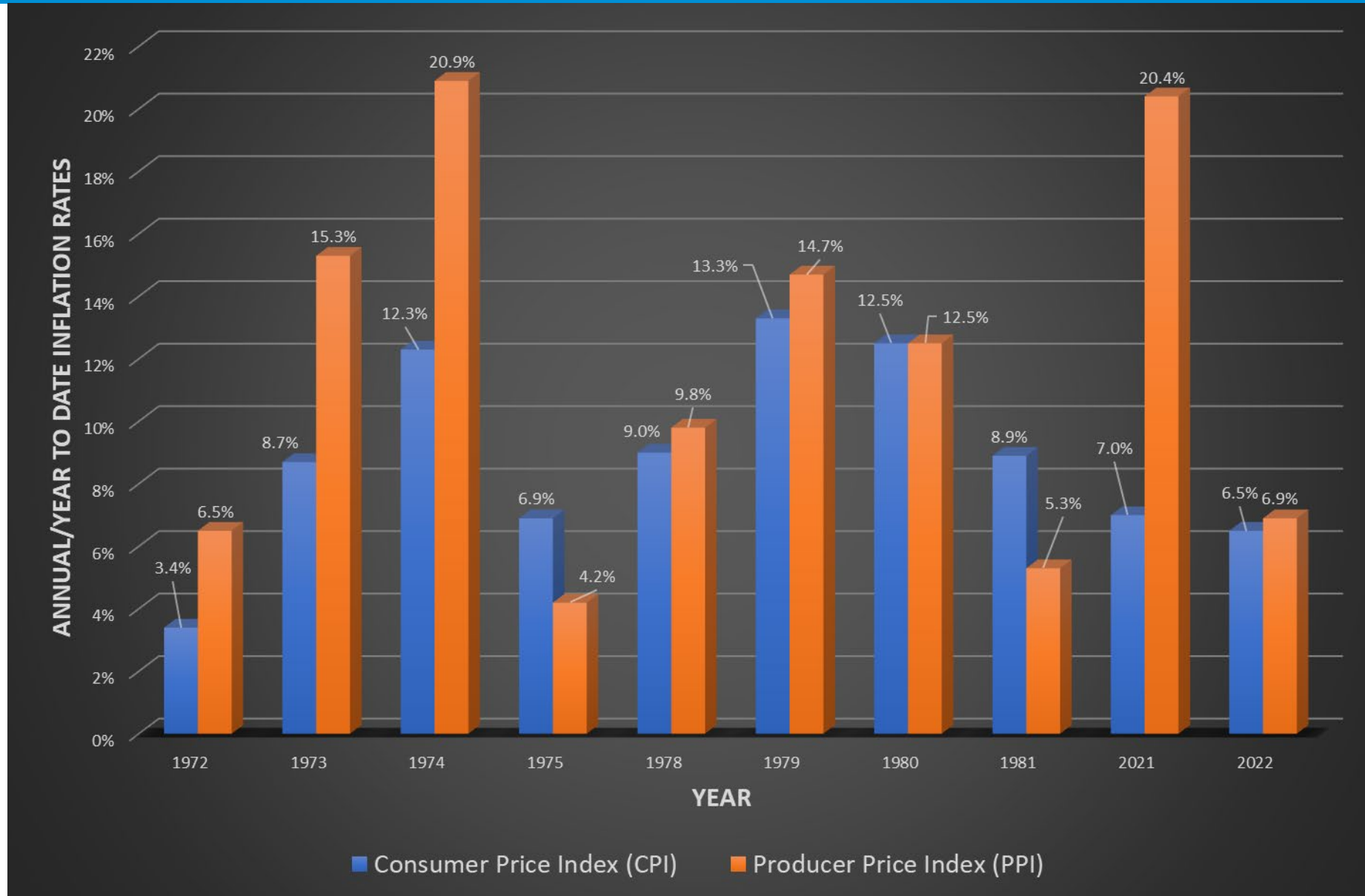
Inventory @ Cost	-6%	-5%	-4%	-3%	-2%	-1%	0%	1%	2%	3%	4%	5%	6%	7%	8%
10,000,000	-1,845,836	-1,754,013	-1,664,104	-1,576,049	-1,489,790	-1,405,274	-1,322,449	-1,241,263	-1,161,670	-1,083,622	-1,007,074	-931,985	-858,313	-786,018	-715,061
11,000,000	-1,718,147	-1,617,143	-1,518,243	-1,421,382	-1,326,497	-1,233,530	-1,142,422	-1,053,118	-965,565	-879,712	-795,510	-712,912	-631,872	-552,348	-474,296
12,000,000	-1,590,459	-1,480,272	-1,372,381	-1,266,714	-1,163,204	-1,061,785	-962,395	-864,972	-769,460	-675,802	-583,946	-493,839	-405,432	-318,678	-233,530
13,000,000	-1,462,771	-1,343,402	-1,226,520	-1,112,047	-999,911	-890,041	-782,368	-676,827	-573,355	-471,892	-372,381	-274,765	-178,991	-85,007	7,236
14,000,000	-1,335,082	-1,206,531	-1,080,658	-957,380	-836,619	-718,296	-602,341	-488,681	-377,250	-267,983	-160,817	-55,692	47,449	148,663	248,002
15,000,000	-1,239,040	-1,087,724	-939,561	-802,713	-673,326	-546,552	-422,314	-300,535	-181,145	-64,073	50,748	163,381	273,890	382,333	488,768
16,000,000	-1,197,375	-1,035,971	-877,930	-723,148	-571,524	-422,963	-277,374	-134,667	5,241	139,837	262,312	382,455	500,331	616,003	729,533
17,000,000	-1,155,709	-984,218	-816,299	-651,843	-490,743	-332,897	-178,208	-26,583	122,070	267,836	410,799	551,039	688,632	823,654	956,176
18,000,000	-1,148,936	-947,368	-754,668	-580,538	-409,961	-242,831	-79,042	81,502	238,899	393,240	544,612	693,101	838,789	981,753	1,122,070
19,000,000	-1,212,766	-1,000,000	-791,667	-587,629	-387,755	-191,919	0	188,119	355,728	518,643	678,425	835,164	988,945	1,139,852	1,287,964
20,000,000	-1,276,596	-1,052,632	-833,333	-618,557	-408,163	-202,020	0	198,020	392,157	582,524	769,231	952,381	1,132,075	1,297,951	1,453,858
21,000,000	-1,340,426	-1,105,263	-875,000	-649,485	-428,571	-212,121	0	207,921	411,765	611,650	807,692	1,000,000	1,188,679	1,373,832	1,555,556
22,000,000	-1,404,255	-1,157,895	-916,667	-680,412	-448,980	-222,222	0	217,822	431,373	640,777	846,154	1,047,619	1,245,283	1,439,252	1,629,630
23,000,000	-1,468,085	-1,210,526	-958,333	-711,340	-469,388	-232,323	0	227,723	450,980	669,903	884,615	1,095,238	1,301,887	1,504,673	1,703,704
24,000,000	-1,531,915	-1,263,158	-1,000,000	-742,268	-489,796	-242,424	0	237,624	470,588	699,029	923,077	1,142,857	1,358,491	1,570,093	1,777,778
25,000,000	-1,595,745	-1,315,789	-1,041,667	-773,196	-510,204	-252,525	0	247,525	490,196	728,155	961,538	1,190,476	1,415,094	1,635,514	1,851,852
26,000,000	-1,659,574	-1,368,421	-1,083,333	-804,124	-530,612	-262,626	0	257,426	509,804	757,282	1,000,000	1,238,095	1,471,698	1,700,935	1,925,926
27,000,000	-1,685,605	-1,404,671	-1,123,737	-835,052	-551,020	-272,727	0	267,327	529,412	786,408	1,038,462	1,285,714	1,528,302	1,766,355	2,000,000
28,000,000	-1,685,605	-1,404,671	-1,123,737	-842,803	-561,868	-280,934	0	277,228	549,020	815,534	1,076,923	1,333,333	1,584,906	1,831,776	2,074,074
29,000,000	-1,685,605	-1,404,671	-1,123,737	-842,803	-561,868	-280,934	0	280,934	561,868	842,803	1,115,385	1,380,952	1,641,509	1,897,196	2,148,148
30,000,000	-1,685,605	-1,404,671	-1,123,737	-842,803	-561,868	-280,934	0	280,934	561,868	842,803	1,123,737	1,404,671	1,685,605	1,962,617	2,222,222
31,000,000	-1,685,605	-1,404,671	-1,123,737	-842,803	-561,868	-280,934	0	280,934	561,868	842,803	1,123,737	1,404,671	1,685,605	1,966,539	2,247,473
32,000,000	-1,685,605	-1,404,671	-1,123,737	-842,803	-561,868	-280,934	0	280,934	561,868	842,803	1,123,737	1,404,671	1,685,605	1,966,539	2,247,473

12/31/2022 minimum inventory balance at cost required to completely avoid LIFO layer erosions

26,407,813	26,688,747	26,969,681	27,250,616	27,531,550	27,812,484	28,093,418	28,374,352	28,655,286	28,936,221	29,217,155	29,498,089	29,779,023	30,059,957	30,340,892
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LIFO expense (income) = current vs. prior year LIFO reserve change. 12/31/2022 LIFO reserve = 2021 year end LIFO reserve (3,122,719) ± 2022 year end LIFO expense (income) amount shown above.

Past vs. Present High-Inflation Periods Comparison



Source: Bureau of Labor Statistics. Seasonally unadjusted figures.
Figures are for the 12 months ended December (i.e., Dec. '22 ÷ Dec. '21)



Past vs. Present High-Inflation Periods Comparison

- **Past: 1970s – 1980s (all rates are based off 1 year or 12 months ended December annual averages)**
 - **'72 – '75 (4 years)**
 - Well above-average in 1972 & 1975; peak CPI inflation of 15% occurred in '73 & peak PPI inflation of 21% occurred in '74 (2nd & 3rd years)
 - Huge wave of LIFO elections occurred during this period, especially between 1974 – 1975 (4th & 5th years)
 - **'78 – '81 (4 years)**
 - Well above-average in 1978, 1980 – 1981; peak CPI/PPI inflation of 13%/15% occurred in '79 (2nd year)
 - Another influx of LIFO elections occurred during this period, primarily in 1980 & 1981 (3rd & 4th years)
- **Present: 2021 – 2022**
 - **2021:** 20% PPI inflation likely represented peak PPI for the current high inflation period & 7% CPI inflation is well above-average
 - **2022:** 8% PPI inflation is highly elevated (11M ended Nov. '22) & 8% CPI inflation likely represents peak CPI for current high inflation period (10 months ended Oct. 2022)
- **Key takeaways**
 - The current high-inflation period will make it one of the best times to elect LIFO in the past 4-5 decades
 - 2022 will likely be the last period in the foreseeable future to elect LIFO during a record high-inflation period & obtain material election year LIFO tax benefits since peak PPI occurred in 2021 & peak CPI will likely occur in 2022
 - **Electing LIFO during a historically high inflation period such as 2022 affords the following benefits:**
 - Obtain first year tax deferral/savings that would normally take many years to accrue during a period of average inflation
 - Increase the probability of maintaining a perpetually favorable tax position from LIFO & minimize the likelihood of a complete LIFO reserve recapture from ever occurring



2022 Inflation Environment & Historical Comparisons - BLS PPI

PPI Code	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
PPI Major Commodity Group	Farm products	Processed foods and feeds	Textile products and apparel	Hides, skins, leather & related products	Fuels and related products and power	Chemicals and allied products	Rubber and plastic products	Lumber and wood products	Pulp, paper, and allied products	Metals and metal products	Machinery and equipment	Furniture and household durables	Nonmetallic mineral products	Transportation equipment	Misc. products
Inflation Measurement Period															
12M Ended December 2022	23.2%	9.7%	7.9%	3.2%	12.1%	2.2%	8.4%	-3.5%	9.3%	-6.9%	9.1%	8.4%	13.2%	4.6%	8.9%
12M Ended November 2022	29.6%	11.0%	9.1%	4.5%	12.0%	4.2%	9.7%	3.9%	9.7%	-7.1%	9.7%	8.3%	13.2%	4.8%	8.8%
12M Ended October 2022	26.7%	9.5%	12.9%	-8.4%	36.6%	6.4%	14.3%	10.3%	12.8%	0.0%	10.1%	9.3%	13.8%	5.1%	9.0%
12M Ended December 2021	23.9%	10.4%	15.4%	0.9%	38.3%	22.9%	21.1%	16.4%	16.0%	43.3%	7.1%	10.9%	7.8%	3.9%	6.3%
12M Ended December 2020	3.1%	2.0%	-0.2%	3.0%	-6.3%	0.7%	0.6%	16.1%	3.0%	6.7%	1.0%	1.6%	2.1%	0.9%	2.8%
12M Ended December 2019	-1.4%	2.5%	-0.4%	-3.1%	-6.2%	-2.7%	-1.1%	-0.9%	-2.3%	-4.2%	1.6%	2.0%	1.5%	0.5%	4.0%
12M Ended December 2018	4.4%	0.7%	3.7%	-9.8%	4.2%	1.1%	3.1%	1.1%	2.5%	7.3%	2.5%	3.9%	4.1%	1.3%	2.3%
12M Ended December 2017	5.9%	0.4%	1.5%	-3.1%	10.4%	7.2%	3.1%	4.9%	2.4%	5.6%	0.9%	1.6%	2.3%	0.8%	2.4%
12M Ended December 2016	-5.4%	0.5%	-0.3%	-1.1%	8.3%	2.5%	0.3%	2.0%	1.0%	6.0%	0.0%	0.1%	2.0%	1.0%	1.8%
12M Ended December 2015	-14.9%	-6.2%	-1.0%	-14.8%	-19.8%	-4.8%	-2.6%	-2.1%	-1.1%	-11.3%	0.3%	0.7%	1.5%	1.0%	1.9%
12M Ended December 2014	1.8%	4.2%	1.3%	4.5%	-13.6%	0.0%	0.4%	3.2%	-0.1%	-0.5%	0.7%	1.5%	3.8%	1.3%	1.4%
12M Ended December 2013	-7.8%	-0.8%	0.9%	5.2%	0.6%	0.5%	1.7%	5.4%	1.7%	-1.8%	1.0%	0.7%	2.7%	1.1%	1.5%
12M Ended December 2012	10.1%	4.1%	-0.5%	7.0%	-3.0%	0.8%	0.8%	5.8%	1.0%	-2.3%	0.6%	1.2%	2.5%	1.8%	2.5%
12M Ended December 2011	8.7%	7.2%	7.8%	3.6%	8.7%	7.2%	6.7%	1.8%	0.6%	3.6%	1.9%	3.0%	2.4%	2.6%	3.6%
12M Ended December 2010	18.4%	5.0%	2.2%	16.3%	12.3%	7.3%	4.1%	3.5%	7.8%	9.7%	-0.3%	0.3%	0.6%	0.7%	2.9%
12M Ended December 2009	5.1%	-0.7%	0.2%	-5.5%	18.5%	2.7%	-2.4%	-1.4%	-1.3%	3.8%	0.3%	0.6%	-1.6%	0.4%	0.1%
12M Ended December 2008	-15.9%	5.6%	2.1%	-0.1%	-24.0%	2.5%	8.3%	-1.0%	3.4%	-2.8%	2.7%	4.8%	9.5%	3.6%	2.6%
12M Ended December 2007	25.6%	8.2%	1.6%	0.4%	18.2%	9.0%	1.8%	-0.1%	3.8%	4.0%	-0.1%	1.4%	2.0%	0.9%	2.6%
12M Ended December 2006	5.2%	2.2%	0.9%	3.8%	-5.8%	3.9%	1.3%	-3.0%	4.0%	12.1%	3.2%	1.0%	7.7%	2.5%	2.4%
12M Ended December 2005	1.9%	1.5%	1.8%	-0.3%	30.6%	8.4%	10.5%	1.2%	2.5%	5.1%	0.8%	3.5%	8.1%	0.1%	8.4%
12M Ended December 2004	-4.6%	2.5%	1.6%	0.5%	19.8%	12.4%	5.4%	4.9%	4.3%	19.4%	0.9%	2.5%	5.4%	2.6%	3.2%
12M Ended December 2003	25.5%	7.0%	-0.2%	2.5%	11.0%	5.2%	3.0%	7.1%	1.8%	4.4%	-0.7%	0.5%	1.6%	2.3%	-1.5%
3Y Annual Average: 12/20 - 12/22	16.3%	7.3%	7.5%	2.4%	13.2%	8.1%	9.7%	9.3%	9.3%	12.5%	5.7%	6.9%	7.6%	3.1%	5.9%
5Y Annual Average: 12/18 - 12/22	10.1%	5.0%	5.1%	-1.3%	7.2%	4.5%	6.1%	5.5%	5.5%	7.9%	4.2%	5.3%	5.7%	2.2%	4.8%
10Y Annual Average: 12/13 - 12/22	2.6%	2.2%	2.8%	-1.7%	1.7%	2.7%	3.3%	4.1%	3.1%	3.6%	2.4%	3.1%	4.1%	1.6%	3.3%
20Y Annual Average: 12/03 - 12/22	4.9%	3.2%	2.2%	0.5%	4.5%	4.5%	3.6%	2.9%	2.9%	4.5%	1.6%	2.5%	3.9%	1.7%	3.0%
Inflation Frequency: 12/03 - 12/22	14 of 20	17 of 20	14 of 20	12 of 20	13 of 20	17 of 20	17 of 20	13 of 20	16 of 20	13 of 20	16 of 20	20 of 20	19 of 20	20 of 20	19 of 20
2021 - 2022 vs. 20 Year Annual Average Inflation Rate Multipliers: Current/Prior Year Inflation Rate Comparison to 20 Year Annual Average Inflation Rates (2021 - 2022 Inflation Rates ÷ 20 Year Average Annual Inflation Rates)															
12M Ended December 2022	4.7	3.0	3.5	6.9	2.6	0.5	2.3	-1.2	3.2	-1.5	5.5	3.4	3.4	2.7	3.0
12M Ended November 2022	6.0	3.4	4.1	9.8	2.6	0.9	2.7	1.3	3.3	-1.6	5.9	3.4	3.4	2.8	3.0
12M Ended October 2022	5.4	2.9	5.8	-18.2	8.0	1.4	4.0	3.5	4.4	0.0	6.1	3.8	3.5	3.0	3.0

2022 Inflation Environment & Historical Comparisons - BLS CPI

CPI Code	SAF	SEHE	SAH3	SAA	SAM1	SEEA	SEGA	SEGB	SEGE	SAG	SAT1	SS45011	SS45021	SETA02	SETC
BLS CPI Major Expenditure Group	Food & Beverages	Fuel Oil & Other Fuels	Household Furnishings & Operations	Apparel	Medical Care Commodities	Educational Books & Supplies	Tobacco & Smoking Products	Personal Care Products	Miscellaneous Personal Goods	Other Goods And Services	Private Transportation	New Cars	New Trucks	Used Cars And Trucks	Motor Vehicle Parts & Equip.
Inflation Measurement Period															
12M Ended December 2022	10.1%	26.0%	6.7%	2.9%	3.2%	5.4%	5.5%	7.5%	10.8%	6.4%	3.2%	6.2%	6.0%	-8.8%	9.9%
12M Ended November 2022	10.3%	41.7%	7.6%	3.6%	3.1%	5.3%	6.3%	7.4%	10.8%	7.0%	7.1%	7.8%	7.1%	-3.3%	11.6%
12M Ended October 2022	10.6%	44.2%	8.4%	4.1%	3.1%	4.7%	6.6%	6.8%	9.8%	6.5%	10.4%	9.6%	8.0%	2.0%	12.2%
12M Ended December 2021	6.0%	38.0%	7.4%	5.8%	0.4%	-0.4%	9.0%	0.1%	6.2%	4.5%	22.6%	12.0%	11.6%	37.3%	11.3%
12M Ended December 2020	3.8%	-13.3%	3.2%	-3.9%	-2.5%	0.7%	5.1%	-0.3%	-0.2%	2.4%	-1.5%	2.1%	1.9%	10.0%	0.4%
12M Ended December 2019	1.7%	2.2%	1.0%	-1.2%	2.5%	-2.0%	5.5%	-0.9%	6.8%	2.3%	2.0%	0.1%	0.3%	-0.7%	1.8%
12M Ended December 2018	1.6%	1.3%	2.1%	-0.1%	-0.5%	1.0%	3.4%	-0.4%	-9.3%	2.1%	0.9%	0.2%	-0.7%	1.4%	2.2%
12M Ended December 2017	1.6%	12.6%	-0.8%	-1.6%	2.3%	-1.8%	6.5%	-0.8%	-2.4%	2.0%	3.8%	-1.1%	-0.1%	-1.0%	-0.5%
12M Ended December 2016	-0.1%	7.9%	-1.1%	-0.1%	4.7%	5.5%	3.6%	-0.3%	-0.9%	2.1%	2.8%	-0.2%	0.6%	-3.5%	-1.0%
12M Ended December 2015	0.8%	-23.2%	-0.1%	-0.9%	1.5%	4.4%	3.6%	0.1%	-4.7%	1.9%	-4.4%	-0.4%	0.7%	0.4%	-0.3%
12M Ended December 2014	3.3%	-13.7%	-0.9%	-2.0%	4.8%	4.6%	3.0%	0.3%	-0.6%	1.6%	-6.4%	-0.1%	1.3%	-4.2%	-0.7%
12M Ended December 2013	1.1%	2.9%	-1.4%	0.6%	0.3%	5.0%	3.2%	0.8%	-2.2%	1.8%	0.5%	-0.6%	1.4%	-4.5%	-2.1%
12M Ended December 2012	1.8%	-1.4%	0.0%	1.8%	1.7%	7.0%	1.9%	0.2%	-0.6%	1.5%	1.5%	1.1%	2.1%	-3.2%	0.9%
12M Ended December 2011	4.5%	14.3%	1.0%	4.6%	3.2%	5.2%	2.3%	0.1%	-1.0%	1.7%	5.3%	4.0%	2.3%	-0.8%	5.9%
12M Ended December 2010	1.5%	13.5%	-2.5%	-1.1%	2.9%	3.5%	5.6%	-1.0%	-1.8%	1.9%	5.3%	-1.1%	1.0%	1.1%	3.3%
12M Ended December 2009	-0.4%	2.5%	-1.1%	1.9%	3.3%	6.9%	30.1%	0.5%	0.6%	8.0%	15.3%	3.6%	6.6%	1.7%	1.3%
12M Ended December 2008	5.8%	-14.4%	2.0%	-1.0%	1.6%	7.0%	6.3%	2.0%	1.4%	3.4%	-14.4%	-1.1%	-5.3%	1.9%	7.4%
12M Ended December 2007	4.8%	28.3%	-0.7%	-0.3%	2.7%	8.7%	7.5%	-0.5%	0.7%	3.3%	8.3%	-0.4%	-0.2%	2.0%	3.7%
12M Ended December 2006	2.2%	2.4%	0.5%	0.9%	1.8%	6.7%	2.8%	2.3%	0.6%	3.0%	1.7%	0.2%	-2.0%	1.8%	4.8%
12M Ended December 2005	2.3%	24.0%	0.7%	-1.1%	3.7%	5.2%	5.8%	1.3%	-0.2%	3.1%	4.7%	0.8%	-1.9%	0.2%	3.7%
12M Ended December 2004	2.6%	34.1%	0.6%	-0.2%	2.2%	3.8%	3.1%	0.0%	-2.7%	2.5%	7.0%	0.5%	0.5%	-1.6%	2.0%
12M Ended December 2003	3.5%	9.1%	-1.8%	-2.1%	2.1%	6.0%	-0.4%	0.0%	-4.9%	1.5%	0.3%	-2.1%	-1.5%	-3.3%	0.7%
3Y Annual Average: 12/20 - 12/22	2.0%	11.3%	2.4%	1.9%	0.1%	-0.1%	2.9%	0.0%	2.0%	1.5%	7.0%	3.8%	3.7%	11.1%	3.6%
5Y Annual Average: 12/18 - 12/22	2.9%	6.9%	2.5%	-0.3%	0.4%	-0.5%	5.9%	-0.4%	0.0%	2.7%	5.2%	2.6%	2.5%	8.5%	3.0%
10Y Annual Average: 12/13 - 12/22	2.1%	0.1%	0.9%	-0.2%	1.5%	2.4%	4.4%	-0.1%	-0.9%	2.2%	1.9%	1.3%	1.9%	3.4%	1.1%
20Y Annual Average: 12/03 - 12/22	2.5%	5.7%	0.3%	-0.1%	2.1%	4.3%	5.7%	0.1%	-0.9%	2.7%	2.7%	0.7%	0.8%	1.4%	2.3%
Inflation Frequency: 12/03 - 12/22	18 of 20	15 of 20	11 of 20	7 of 20	18 of 20	17 of 20	19 of 20	11 of 20	7 of 20	20 of 20	16 of 20	11 of 20	13 of 20	10 of 20	15 of 20
2021 - 2022 vs. 20 Year Annual Average Inflation Rate Multipliers: Current/Prior Year Inflation Rate Comparison to 20 Year Annual Average Inflation Rates (Multiplier > 1 = above-average; < 1 or negative = below-average)															
12M Ended December 2022	4.1	4.5	22.6	27.0	1.5	1.3	1.0	64.8	12.5	2.4	1.2	8.4	7.8	-6.4	4.4
12M Ended November 2022	4.2	7.3	25.4	-33.0	1.5	1.2	1.1	63.9	-12.5	2.6	2.6	10.6	9.1	-2.4	5.1
12M Ended October 2022	4.3	7.7	28.3	-38.1	1.5	1.1	1.2	58.2	-11.4	2.4	3.8	13.0	10.3	1.5	5.4

What Makes a Good LIFO Candidate?

- **Good LIFO Candidate:** LIFOPro has developed a proprietary scoring system to identify good candidates, which requires for the following criteria to be met -
 - **High inflation frequency:** Must have inflation in more than half of the last 20 years (11 or more). Best LIFO candidates have high inflation frequency because the more often inflation is expected to occur, the higher the likelihood that LIFO acts as annuity & the lower the likelihood of deflation/LIFO recapture
 - **Historical Average Annual Inflation Rate of 1% or greater:** Using 20 year average annual inflation rate (or 3/5/10 year)
 - **At least \$2M - \$5M of inventory:** Dependent on inflation level, tax rate & company's perceived value of LIFO tax benefits
- **Good LIFO Election Candidate:** Must meet the good LIFO candidate criteria listed above & have an election year inflation rate that's greater than or equal to the historical average annual inflation rate
- **Good 2022 LIFO Election Candidates:** Download list here - [LIFOPro's 2022 Good LIFO Election Candidates & Client ID Tool](#)
- **Election Year LIFO Tax Savings Formula & Example**
 - **Formulas**
 - **Election year taxable income reduction from LIFO (LIFO expense):** Prior year inventory balance at cost * Current year inflation rate
 - **Election year LIFO tax benefit:** Current year LIFO expense * Combined federal & state tax rate
 - **Example:**
 - **Assumptions:** \$5M prior year end inventory balance, 10% current year inflation & 40% tax rate
 - **Results:**
 - **Election year LIFO expense:** $\$5M * 10\% = \$500K$
 - **Election year LIFO tax benefit:** $\$500K * 40\% = \$200K$



Top 10 LIFO Locks of 2022: By Industry & Product Type

- **All processed foods & feeds except meat, poultry & seafood – 10% inflation**
- **Selected Chemicals & allied products, including:**
 - Basic inorganic chemicals – 30% inflation
 - Paints & allied products – 20% inflation
 - Agricultural chemicals and chemical products – 19% inflation
 - Thermosetting resins – 13% inflation
 - Soaps & detergents – 12% inflation
 - Cosmetics & other toilet preparations – 6% inflation
- **All Rubber & plastic products, including:**
 - Tires – 15% inflation
 - Construction products – 9% inflation
 - Film, sheet, rods & tubes: 5% - 13% inflation
 - Packaging products – 8% inflation
 - Consumer, institutional & commercial fabricated plastic products – 14% inflation
- **Selected lumber & wood products, including:**
 - Millwork – 8% inflation
 - Logs, bolts, timber, pulpwood & wood chips – 5% inflation
 - Treated wood – 9% inflation



Top 10 LIFO Locks of 2022: By Industry & Product Type

- **Selected Pulp, paper & allied products, including:**
 - Paper & paperboard – 9% inflation
 - Converted paper and paperboard products (including sanitary paper products) – 14% inflation
 - Pressure-sensitive products, including tape – 15% inflation
 - Publications, printed matter and printing material (including books, magazines & stationary) – 14% inflation
- **Selected Metal commodities & products, including:**
 - Foundry & forge shop products – 13% inflation
 - Steel wire – 12% inflation
 - Metal containers – 18% inflation
 - Plumbing fixtures, fittings & trim – 9% inflation
 - Heating equipment – 11% inflation
 - **Fabricated structural metal products, including:**
 - Metal doors, sash & trim – 10% inflation
 - Metal tanks – 11% inflation
 - Sheet metal products – 7% inflation
 - **Miscellaneous metal products, including:**
 - Fasteners, including screws, bolts, pins, nuts, washers & non-threaded metal fasteners – 15% inflation
 - Lighting fixtures – 7% inflation
 - Ferrous wire products, including wire springs – 14% inflation
 - Metal foil & leaf – 19% inflation



Top 10 LIFO Locks of 2022: By Industry & Product Type

- **All Machinery & equipment, including:**
 - Agricultural, farm & construction machinery/equipment – 13% inflation
 - Heat transfer, ventilation & air-conditioning (HVAC) – 13% inflation
 - Pumps, compressors & related equipment – 16% inflation
 - Material handling equipment – 10% inflation
 - Fluid power equipment (hydraulics) – 11% inflation
 - Miscellaneous other equipment, including valve and pipe fittings/unions – 11% inflation
- **All Furniture & electronics, including:**
 - Household & commercial furniture: 8% - 13% inflation
 - Household appliances – 8% inflation
 - Other household durable goods – 7% inflation
- **All Transportation equipment, including:**
 - Auto, marine/power sports & RV dealers: 5% - 15% inflation
 - Auto parts: 4% - 10% inflation
- **All Miscellaneous products, including:**
 - Toys, Sporting and athletic goods, Small arms & ammo – 12% inflation
 - Tobacco products – 11% inflation
 - Photographic equipment & supplies – 7% inflation
 - Safety equipment & clothing – 11% inflation



Top 2022 LIFO Planning Strategies & Opportunities

• Companies NOT on LIFO: Elections

- The tax benefits from LIFO *are primarily driven by the amount of inflation* measured in any given year
- 2022 inflation will likely be well or far above historical averages in many industries, which will create some of the best LIFO tax deferral/savings opportunities seen in 4-5 decades.
- When compared to a normal inflation period, many years worth of LIFO tax benefits can be obtained in a single year by electing in 2022
- One of the best possible times to elect LIFO is in a year with above-average or record high inflation because it greatly increases the probability of the year one LIFO reserve being much larger than the sum of any future LIFO recapture (taxable income) that could potentially be created during deflationary periods. See example below.

10-year LIFO Reserve Comparison: Differential Between Electing in an Average vs. High Inflation Period

High Inflation Period - 10% election year inflation (2022)

Period	Inventory at Cost	Current Year Inflation Rate	Cumulative Inflation Rate	Inventory at LIFO	LIFO Reserve	LIFO Expense (Income)
12/31/2021	20,000,000	-	-	20,000,000	-	-
12/31/2022	25,000,000	10.0%	10.0%	23,000,000	2,000,000	2,000,000
12/31/2023	26,500,000	2.0%	12.2%	24,000,000	2,500,000	500,000
12/31/2024	25,000,000	1.0%	13.3%	22,267,133	2,732,867	232,867
12/31/2025	24,000,000	-3.0%	9.9%	22,016,956	1,983,044	-749,823
12/31/2026	25,000,000	-1.0%	8.8%	23,256,958	1,743,042	-240,002
12/31/2027	26,000,000	1.5%	10.5%	23,881,958	2,118,042	375,000
12/31/2028	28,000,000	-1.5%	8.8%	26,271,958	1,728,042	-390,000
12/31/2029	30,000,000	3.0%	12.1%	27,431,958	2,568,042	840,000
12/31/2030	30,500,000	2.5%	14.9%	27,188,056	3,311,944	743,902
12/31/2031	31,000,000	4.0%	19.5%	26,512,634	4,487,366	1,175,422

Average Inflation Period - 2% election year inflation (2023)

Period	Inventory at Cost	Current Year Inflation Rate	Cumulative Inflation Rate	Inventory at LIFO	LIFO Reserve	LIFO Expense (Income)
12/31/2022	25,000,000	-	-	25,000,000	-	-
12/31/2023	26,500,000	2.0%	2.0%	26,000,000	500,000	500,000
12/31/2024	25,000,000	1.0%	3.0%	24,267,133	732,867	232,867
12/31/2025	24,000,000	-3.0%	-0.1%	24,016,956	-16,956	-749,823
12/31/2026	25,000,000	-1.0%	-1.1%	25,256,958	-256,958	-240,002
12/31/2027	26,000,000	1.5%	0.4%	25,881,958	118,042	375,000
12/31/2028	28,000,000	-1.5%	-1.1%	28,271,958	-271,958	-390,000
12/31/2029	30,000,000	3.0%	1.9%	29,431,958	568,042	840,000
12/31/2030	30,500,000	2.5%	4.4%	29,188,056	1,311,944	743,902
12/31/2031	31,000,000	4.0%	8.6%	28,512,634	2,487,366	1,175,422
12/31/2032	31,500,000	0.5%	9.1%	28,857,634	2,642,366	155,000



Top 2022 LIFO Planning Strategies & Opportunities

• Companies not on LIFO: Elections, continued: LIFO Election Candidate Client Identification Steps

Build LIFO election target client list

Export client list from CRM to Excel file & if available, include client's industry type or primary business activity

Download LIFOPro's 2022 Top LIFO Election candidates Excel file & copy/paste data from client list into Election Candidate Target List Excel sheet

Enter client's prior year inventory balances and tax rates into Election Candidate Target List (optional)

Identify good LIFO election candidates

Use Election Candidates by BLS Code Excel sheet to locate a BLS description that matches your client's industry type or product mix

Enter each client's matching BLS code into Election Candidate Target List to populate election year LIFO expense, tax savings & inflation data

Refine list & prioritize best election candidates based on factors such as: 1. Estimated election year LIFO tax benefits 2. Highest inflation frequency or inflation multiplier

Advocate exploring/electing LIFO to clients

Inform client about LIFO opportunity and share results from Election Candidate Target List

Notify client that they can obtain free benefit analysis and/or learn more by attending LIFO discovery call/meeting

Share benefit analysis document request with client, introduce/refer client to LIFOPro or schedule call with client/LIFOPro

LIFOPro's 2022 Good LIFO Election Candidates List & Identification Tool
LIFOPro's Election Candidate ID Tool Usage Steps



Top 2022 LIFO Planning Strategies & Opportunities

- **Companies not on LIFO, continued: Election requirements & disclaimers**
 - **Election Requirements**
 - **LIFO Conformity Rule:** Must value inventory using LIFO on financial statements beginning with the same period LIFO is elected & reported on the tax return (although financial statements must show inventory & income reported under LIFO, disclosures can be made in notes to financial statements to present amounts such as ending inventory and income using non-LIFO method for comparative purposes)
 - Election scope or the goods to be valued under LIFO for tax purposes can not be greater than inventories valued under LIFO for financial reporting (can have more goods on LIFO for book than for tax, but not vice versa)
 - **Must take NON-LIFO reserves into income over 4-year period beginning with year of election. Examples include:**
 - Lower of cost or market reserve
 - Slow-moving/obsolete reserve
 - Arbitrary write-downs other than shrink
 - Must stay on LIFO for five years prior to being allowed to automatically terminate election (must pay \$12K users fee & complete change prior to year end if terminating LIFO election less than five years before original year of adoption)
 - **Disclaimers**
 - **Portions or all of LIFO reserve may be taken back into income if the following occurs:**
 - **Portion of LIFO reserve may be taken back into income in periods where one or both of the following occurs:**
 - Deflation
 - Material inventory liquidations (for example, a 50% decrease in the current vs. prior year's ending inventory balance at cost)
 - **All of LIFO reserve will be taken back into income when either of the following occurs:**
 - C to S Corp conversions
 - Business asset sales

Top 2022 LIFO Planning Strategies & Opportunities

- **Companies on LIFO: Switch to IPIC method (using Bureau of Labor Statistics Consumer/Producer Price Index)**
 - **Tax deferral maximization:** Often creates more inflation than actual internal product costs or internal index inflation for the following reasons:
 - BLS PPI inflation will be greater than internal index inflation on goods that were imported or purchased for resale products sourced from abroad because BLS PPI only measures U.S. or domestic production & domestically produced goods inflation rates have historically been materially higher than imported goods
 - When the IPIC method is used, new items are given preexisting item inflation since BLS only measures price changes on preexisting items (or they reconstruct the cost on any newly-introduced item). With internal indexes, new items' prior year costs are often set to equal to its current year cost since reconstruction is often burdensome/subjective & IRS Regs. prohibit new items from being excluded from the inflation calculation. As a result, during periods of inflation, new items will reduce the overall current year inflation rate when internal indexes are used. This becomes more pronounced when there's high item turnover and/or high inflation.
 - **Much quicker, simpler means of performing interim estimates than internal indexes**
 - **Minimize IRS scrutiny upon audit or reduce audit risk**
 - IPIC method is IRS safe harbor method, which affords taxpayers less scrutiny from IRS upon audit compared to taxpayers using internal indexes since inflation calculation relies on external government indexes & internal indexes rely on the taxpayer's accounting records/systems
 - Switch to IPIC method from internal indexes to IPIC method provides audit protection from prior period calculation errors
 - Can also provide a safe harbor for companies with LIFO books & records audit risk. See [IRS LIFO Records Practice Unit](#)
 - **Simplify LIFO calculation & reduce volatility**
 - **IPIC method can simplify inflation calculation for manufacturers because:**
 - Reduces reliance on accounting information systems & appropriate allocation of item cost components such as materials, labor & overhead since inflation is measured using BLS PPI, not current & prior/base period item/unit costs
 - Inflation for WIP inventories are calculated by assigning the applicable finished goods PPI code to the WIP items
 - IPIC method can reduce volatility because BLS surveys thousands of producers & eliminates extreme cost fluctuations that could occur within any single company
 - **Automatic approval to change to IPIC method & is applied on a cutoff basis**
 - Affords audit protection from LIFO reserve overstatements since change is applied beginning in year of change & built from pre-change LIFO reserve
 - Only means of automatically changing from double-extension to link-chain (double-extension = current vs. base year cost comparison; link-chain = current vs. prior year cost comparison; advanced approval change to switch from double-extension to link-chain internal index)



Learn more about the IPIC method here: [IPIC LIFO Advantages](#)

Top 2022 LIFO Planning Strategies & Opportunities

- **Companies on LIFO, continued: Auto Dealers:**
 - **Opportunities & Strategies for Dealers on LIFO:**
 - Depending on ALM inflation, switch to IPIC method from ALM could create materially higher tax benefits on new vehicles, especially for imported vehicles
 - Tax benefits could be maximized by expanding LIFO election scope to include used vehicles and/or parts and switching to IPIC method
 - **Opportunities & Strategies for Dealers not on LIFO:**
 - Many years worth of LIFO tax deferral can be obtained in election year by adopting in 2022 with inflation being at or near record highs, and election can be made using the lowest administrative burden & outsourcing costs
 - Tax benefits from LIFO can be maximized by including used vehicles and/or parts in election scope
 - **Opportunities & Strategies for All dealers**
 - If switching to IPIC method & only new vehicles are to be included in election scope, CPI should be used since the inflation for new vehicles is higher than PPI
 - If electing LIFO or switching to IPIC method and including used vehicles and/or parts in election scope, CPI or PPI could be used depending on the appropriate months selected and proportion of new vs. used vehicles inventories & cars vs. SUVs/Trucks/minivans/crossovers balances
 - **Quick LIFO Expense Formula Analysis for incorporating IPIC method estimate into P12 financial statements:**
 - **Input 1:** Estimated prior year inventory balance at cost for all goods to be included in LIFO election scope for 2022 year end
 - **Input 2:** Estimated current year CPI/PPI inflation rate for all goods to be included in LIFO election scope for 2022 year end
 - **IPIC LIFO expense calculation example for P12 financial statement estimate:**
 - 2021 year end inventory balance at cost for new vehicles, used vehicles & parts: \$10M
 - 2022 year end estimated CPI/PPI inflation for all goods: 7%
 - 2022 year end IPIC LIFO expense for P12 financial statement estimate: $\$10M * 7\% = \$700K$



LIFO Method Alternatives & Best Practices

- **LIFO value pricing method**
 - **Specific goods (“unit LIFO”):** LIFO value of inventory is accounted for at the item level. Unit costs & the physical flow of goods are tracked on a LIFO basis within accounting system
 - **Dollar-value:** Under this method, the LIFO value is accounted for as a top-side adjustment rather than at the item level. Unit costs & the physical flow of goods are tracked at actual cost (FIFO, average cost or specific ID) or standard cost. Side computation made outside of accounting system to calculate inflation, layers (decrements), inventory @ LIFO, LIFO reserve & LIFO expense (income)
 - **Best practice:** Use dollar-value LIFO because it avoids many undesirable characteristics of LIFO & offers materially higher long-term tax benefits when compared to unit LIFO
 - **LIFO index computation timeframe selection**
 - **Link-chain:** Current quantities are extended against current & prior period item/unit costs to calculate current year inflation index (one year measurement period)
 - **Double-extension:** Current quantities are extended against current & base period unit costs to calculate current year cumulative index (all years on LIFO measurement period)
 - **Best practice:** Use Link-chain LIFO because it’s absent of the inherent flaws built into double-extension method & link-chain precludes the need to reconstruct base year costs for new items
 - **Inflation measurement source**
 - **Internal indexes:** Current year inflation index measured using actual costs paid/incurred to acquire/procure the goods
 - **External indexes:** aka Inventory Price Index Computation or IPIC method. Bureau of Labor Statistics Consumer/Producer Price Indexes assigned to goods to calculate current year inflation index
 - **Best practice:** Common to use the method that’ll provide the most favorable tax position (inflation), but ultimately varies by industry, product mix & many other company-specific considerations
 - **Current-year cost & layer valuation method**
 - Latest acquisitions (FIFO), 12-month moving average or rolling-average cost (aka weighted average cost), Earliest acquisitions, specific ID or other method that’s clearly reflective of income
 - **Best practice:** For first-time elections, use the same method employed by accounting system to track item costs prior to electing LIFO to prevent wholesale changes to accounting system or IT burden associated with measuring multiple methods
 - **Pooling method**
 - **Resellers (retailers & wholesalers/distributors)**
 - **Manufacturers/producers**
 - Natural business units (separate pool required for manufactured vs. purchased for resale goods)
 - Raw materials content
 - Multiple pools
 - **IPIC LIFO method users**
 - **IPIC Pooling method:** pools established for each BLS major group assigned 5% or more of the total inventory balance at cost
 - Any non-IPIC pooling method listed above that matches your industry type (i.e., manufacturers using IPIC method could use natural business unit pooling method)
- Best practice:** Utilize the method expected to create/require the least amount of LIFO pools to minimize likelihood of LIFO recapture caused by inventory liquidations



LIFO Method Alternatives & Best Practices

- **Auto Dealers**
 - **Alternative LIFO method (ALM)**
 - Measures inflation based on comparing current & prior period's invoice costs
 - Item definition is specific to each vehicle/VIN, meaning inflation must be calculated for each vehicle, not just by make or type (car, truck, SUV)
 - Inflation calculation is materially more burdensome since invoice costs must be compared on a vehicle-by-vehicle basis
 - Most predominantly utilized for new vehicles
 - Historically created more tax deferral than IPIC method until 2020
 - Highest administrative burden & outsourcing costs since inflation calculation requires invoice cost comparisons
 - **IPIC method**
 - Measures inflation by using Bureau of Labor Statistics Consumer/Producer Price Indexes (BLS CPI/PPI)
 - Precludes the need to calculate inflation for each vehicle since government indexes are used to calculate inflation
 - Only documentation required to complete LIFO calculation is a breakdown of inventory balances by the following types:
 - CPI
 - New cars
 - New trucks, SUVs & minivans
 - Used vehicles
 - Parts
 - PPI: Same as above except used vehicles also need to be broken down between cars and trucks/SUVs/minivans
 - Many dealers include used vehicles & parts in election scope because inflation calculation is much simpler than ALM
 - Has grown exponentially in popularity beginning in 2020 primarily because of materially higher inflation/tax benefits
 - Secondary benefit has always been lower administrative costs, simpler means for performing interim estimates & more flexibility in terms of meeting LIFO conformity requirements than ALM
 - Lowest administrative burden & outsourcing costs since inflation calculation only requires summarized totals



Why Perform Analysis or Review?

- **Election Benefit Analysis (for companies not on LIFO, but considering adoption)**
 - Thorough LIFO Due diligence should be considered essential
 - **Failing to perform thorough LIFO due diligence can lead to the following:**
 - Materially lower tax benefits being obtained in the long-term as a result of selecting suboptimal methods
 - Impermissible methods unknowingly being used & audit risk being created
 - Utilizing methods that are more error-prone or burdensome than simpler, less time-intensive alternatives
 - Higher likelihood of eventually terminating LIFO election due to lack of benefits and/or excessive administrative costs/resources
 - **Outsourcing due diligence work to a LIFO subject matter expert ensures the following:**
 - Historical inflation studied to predict long-term impact of LIFO to illustrate potential future benefits & risks
 - All method alternatives are considered & best practices are considered/employed
 - Best possible tax answer is achieved while ensuring compliance
 - Responsibilities & requirements incident to electing are clearly defined
- **Review (for companies already on LIFO)**
 - The majority of calculations & methods we review either contain errors, have compliance issues or utilize suboptimal methods
 - Most compliance issues & suboptimal methods usage results from a lack of thorough due diligence being performed at the time of election
 - Very few CPA firms have software to quickly automate LIFO calculations, confirm calculation accuracy & easily identify errors
 - No CPA firm other than LIFOPro works exclusively with LIFO 100% of the time, meaning that they're unable to provide thorough due diligence
 - **Obtaining a review from a LIFO subject matter expert ensures the following:**
 - Calculation errors that had gone undetected for many years are identified & prevented from occurring in the future
 - Compliance issues & suboptimal methods usage are identified and best practices feedback & recommendations are provided
 - Strategies for reducing or eliminating IRS audit risk are provided



Complimentary Offerings

- **Companies not on LIFO: LIFO Election Benefit Analysis**
 - **Comprehensive LIFO election case study packaged in the form of a PDF report containing the following:**
 - Election year estimated tax LIFO benefits, including comparisons between internal vs. external inflation measurement source
 - 20 year pro forma IPIC LIFO calculation using Bureau of Labor Statistics Consumer/Producer Price Indexes to determine inflation frequency, long-term historical average annual inflation rate & whether a company is a good LIFO candidate
 - Election recommendations including which submethods should be used
 - How LIFO Works appendix covering all the essentials
 - LIFOPro also provides turnkey outsourcing solution fee quote showing election year & recurring costs
 - [Sample LIFO Election Benefit Analysis Report](#)
- **Companies on LIFO: Calculation, Methods & Best Practices Review**
 - **Comprehensive calculation review & guide packaged in the form of a PDF report containing the following:**
 - Calculation review
 - Methods review
 - **Best practices feedback, including:**
 - Optimization strategies & tax deferral maximization opportunities
 - Errors & IRS audit risk areas identified
 - Strategies for reducing IRS audit risk and/or obtaining audit protection
 - Recommendations & implementation steps provided for applying recommended changes
 - Same LIFOPro report package provided to outsourcing clients & fee quote also provided in addition to review report
 - Companies can also receive complimentary LIFOPro software trial
 - [Sample LIFO Calculation, Methods & Best Practices Review Report](#)



Why Outsource LIFO or License LIFO Software?

- **In-house calculations made WITHOUT software**
 - Inflation calculation can be very complex when performed in spreadsheets
 - Important steps may be overlooked or left out altogether when manually performed in-house, such as:
 - Including new items in calculation ensure compliance or reconstructing new item cost to avoid inflation dilution that'd otherwise occur
 - Performing inflation calculation reasonableness testing, setting criteria for identifying inflation outliers & establishing standard procedures for handling outliers
 - Uniform BLS category assignment to new items to ensure the same BLS indexes are applied to similar new vs. preexisting items
 - Calculating layers & decrements can be complex because it's unknown whether there'll be an increment or decrement in any given year & different math steps are required to calculate an increment vs. decrement(s)
 - Calculation errors become more inevitable the longer you've been on LIFO as decades worth of LIFO layers accumulate
- **Outsourced calculations or those made in-house WITH software**
 - Make being on LIFO as simple as possible with outsourcing & minimize time spent on LIFO in-house with software
 - Reduces control & detection risk since all aspects of the calculation is automated using LIFOPro software
 - Simplifies audit procedures by providing comprehensive, user-friendly documentation
 - CPA firms & companies can rely on LIFOPro to serve as their LIFO subject matter expert rather than having to develop & maintain in-house expertise
 - Guarantee calculation accuracy & eliminate IRS audit risk
 - Easily obtain interim estimates to focus on forecasting & planning
 - Avoid getting bogged down with compliance work & getting hit with big LIFO surprises at year end
- **All of LIFOPro's offerings come with the assurance of a SOC 1 Type II Report**



Turnkey Outsourcing Solutions – Features & Benefits

- **Features**

- All tasks related to LIFO calculation & documentation outsourced to & managed by LIFOPro, including:
 - BLS category assignments (if applicable)
 - Inflation calculation, including new item cost reconstruction, exceptions & outlier analysis
 - LIFO reserve calculation
 - LIFO calculation documentation & storage
 - LIFOPro report package preparation
- All clients receive LIFOPro report package electronically containing comprehensive calculation documentation, including summary amounts required to record LIFO-related accounting entries & tax return line items
- Clients using external indexes (IPIC method) receive up to three interim estimates at no additional cost (using prior year product mix & year to date BLS inflation rates)
- Flexible engagement structures to include supplemental services
- Includes up to 40 hours of audit support

- **Benefits**

- Make being on LIFO as simple as possible
- Simplifies audit procedures for companies & auditors by providing them with comprehensive, standardized documentation
- Increase transparency & understandability by converting many years worth of files & documentation into a single user-friendly LIFO report package containing comprehensive documentation
- Eliminate error-prone Excel spreadsheets, guarantee calculation accuracy & eliminate audit risk
- Free up time to focus on LIFO forecasting & planning by eliminating time spent preparing/documenting calculation



Software – Features & Benefits

- **Features**

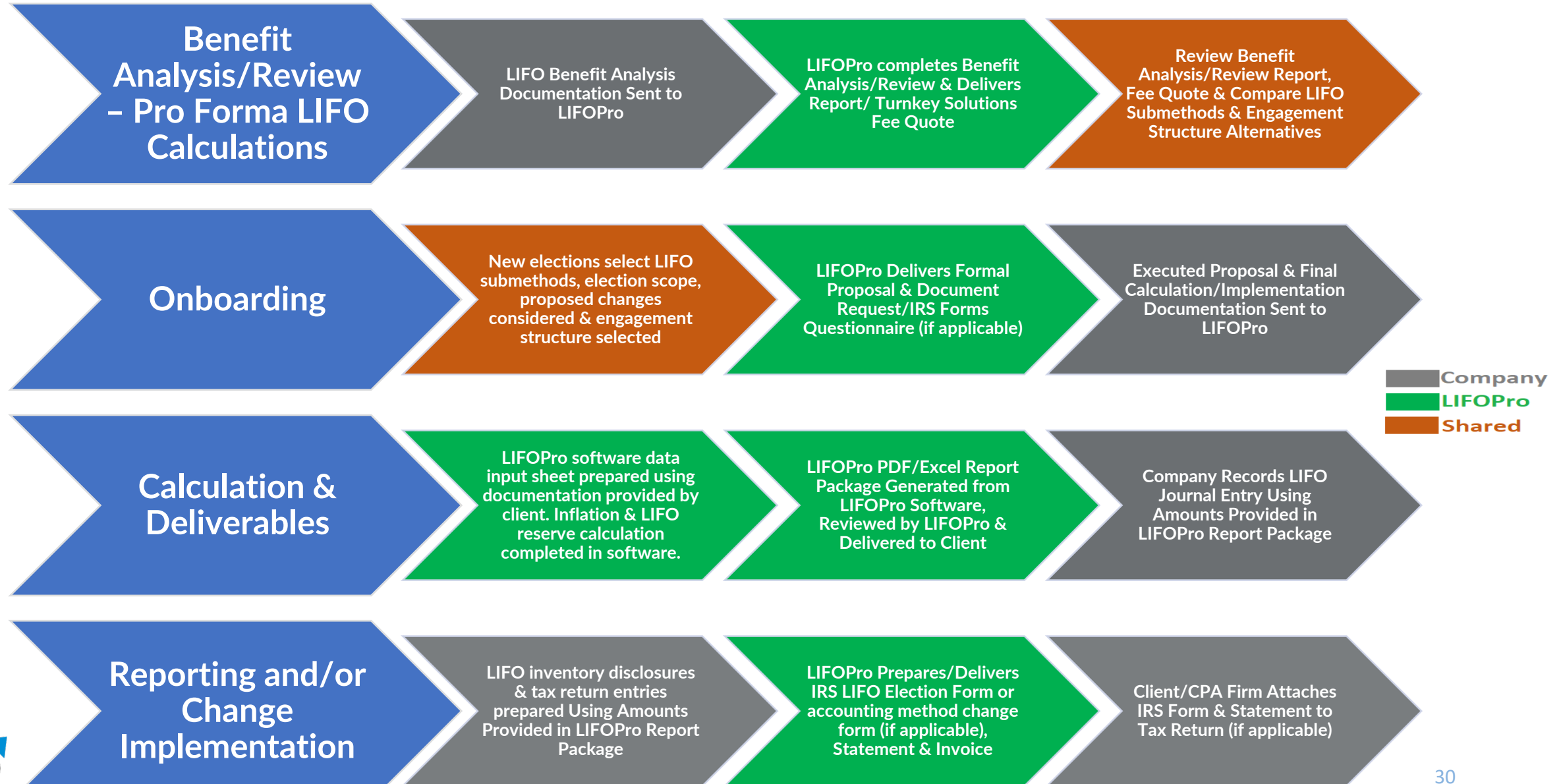
- Complete LIFO calculation & documentation automation for all dollar-value methodologies (excluding auto dealer alternative LIFO method inflation calculations; auto dealer IPIC LIFO inflation calculation is supported)
- **Automates all aspects of the LIFO calculation (excluding BLS category assignments), including:**
 - Inflation calculation, including new item cost reconstruction, exceptions & outlier analysis
 - LIFO reserve calculation
 - LIFO calculation documentation & storage
 - Printing and/or saving all LIFOPro reports as PDF or Excel files
- Separate stand-alone inflation calculation modules for internal & external (IPIC) indexes & both include a complete range of features & settings
- Projections module provides on-demand, unlimited array of next year's LIFO expense (income) figures

- **Benefits**

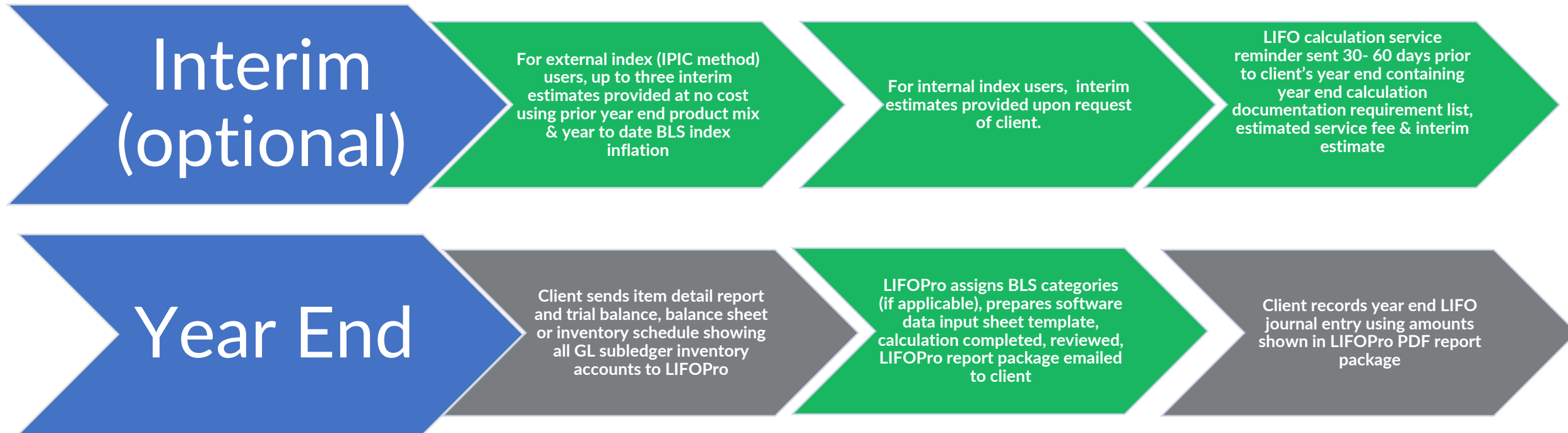
- **Benefits for companies & CPA firms alike include:**
 - Minimize time spent managing LIFO in-house
 - Guarantee calculation accuracy & eliminate errors
 - Replace error-prone spreadsheet formulas & Excel schedules with comprehensive, user-friendly reports
 - Ensure LIFO books & records are IRS Regs. compliant & minimize audit risk
 - Simplify calculation policies/procedures & reporting
 - Increase reporting transparency & understandability
 - Easily & quickly make interim estimates & ad-hoc projections
- **Additional benefits for CPA firms include:**
 - Quickly perform LIFO benefit analysis for clients who are good candidates
 - Quickly confirm/verify LIFO calculation accuracy for audit/review clients
 - Create a highly profitable recurring revenue center by using the software to do all the LIFO heavy lifting & providing LIFO outsourcing services to clients



Turnkey Outsourcing Solutions Process Flow: First Year



Turnkey Outsourcing Solutions Process Flow: Recurring



LIFOPro Outsourcing Fee Range

Inventory Balance at Cost on LIFO	Internal Indexes		External Indexes (IPIC CPI/PPI)	
	First Year	Recurring	First Year	Recurring
< \$1 million	\$500 - \$1,500	\$500 - \$1,000	\$500 - \$1,500	\$500 - \$1,000
\$1M - \$19M	\$1,500 - \$7,500	\$500 - \$1,500	\$1,500 - \$7,500	\$1,000 - \$5,000
\$20M - \$99M	\$3,500 - \$15,000	\$1,500 - \$7,500	\$3,500 - \$15,000	\$2,000 - \$12,500
\$100M - \$499M	\$7,500 - \$20,000	\$3,500 - \$10,000	\$7,500 - \$20,000	\$5,000 - \$15,000
\$500M - \$999M	\$10,000 - \$30,000	\$7,500 - \$15,000	\$10,000 - \$40,000	\$7,500 - \$30,000
\$1B or more	\$12,500 - \$50,000	\$10,000 - \$25,000	\$12,500 - \$50,000	\$10,000 - \$50,000



Key Takeaways

- LIFO tax benefits are primarily driven by inflation & with well above average or record high inflation, 2022 will be one of the best periods to elect LIFO in the last four decades
- CPA firms should be proactive with identifying good election candidates & advocating for their clients to explore adopting LIFO
- Due diligence should be performed prior to electing LIFO to ensure compliance & maximize tax benefits
- **LIFO reviews should be periodically performed for companies already on LIFO for the following reasons**
 - Identify errors & compliance issues
 - Quantify potential audit exposure and learn how certain changes can reduce/eliminate audit risk
 - Identify opportunities to utilize more optimal methods
- **LIFOPro's resources provide CPA firms with all their LIFO needs**
 - Firms can advocate for the use of LIFO without having to develop in-house expertise and resources required to accommodate their clients LIFO needs
 - Firms can streamline identifying the top election candidates using our resources
 - Firms can rely on LIFOPro to provide LIFO training to their clients and firm
- **LIFOPro's offerings provide companies with all their LIFO needs**
 - Companies can make being on LIFO as simple as possible with LIFOPro's turnkey outsourcing solutions
 - Companies can minimize time spent in-house on LIFO & guarantee accuracy with the LIFOPro software



Actionable Items

- **Companies not on LIFO:**
 - **Identify good LIFO election candidates:** Download [LIFOPro's Good LIFO Election Candidate Client ID Tool](#) Excel file & follow steps to identify good candidates
 - Advocate exploring/electing LIFO to clients
 - Obtain complimentary LIFO election benefit analysis & obtain turnkey outsourcing solutions fee quote from LIFOPro
- **Companies on LIFO:** Obtain a complimentary [LIFO Review](#), fee quote(s), sample LIFOPro report package or software trial
- **Documentation requirements**
 - **LIFO Election Benefit Analysis & fee quote (for clients not on LIFO)**
 - **Companies other than dealerships:**
 - Completed questionnaire – [LIFO Benefit Analysis Document Request List](#)
 - Current & prior period's item detail reports (see document request list & sample templates contained in above file)
 - **Dealerships**
 - Completed questionnaire OR current & prior year trial balance or balance sheet schedules
 - [Auto dealer questionnaire](#)
 - [All other dealers questionnaire](#) (RV, ag/farm, construction, powersports, etc.)
 - **Review, fee quote, sample LIFOPro report package or software trial (for clients on LIFO)**
 - LIFO calculation documentation from the last period closed: See [LIFO Review Document Request List](#)
 - **Document delivery options**
 - Secure File Transfer Portal: <https://www.lifopro.com/resources/send-files-to-lifo-pro/>
 - Email (if combined file size is 20MB or less): lifopro@lifopro.com
 - LIFOPro will email you analysis report & fee quote within one week of receiving above documents (expedited delivery available)
- LIFOPro will also offer a free discovery call/online meeting to discuss report findings, recommendations & fee quote
- For outsourcing clients, LIFOPro will turn around final calculation & deliver PDF report package as quickly as needed



Complimentary Resources & Tools

- **LIFO election resources & tools**
 - [LIFO Election Benefit Analysis Request Form](#)
 - [LIFOPro's Good LIFO Election Candidate Client ID Tool](#)
 - [Good LIFO Election Candidate Client Identification Tool Usage Steps](#)
 - [LIFO Election Benefit Analysis Document Request List](#) - for companies other than auto dealers
 - [Auto Dealer LIFO Election Benefit Analysis Questionnaire](#) - for auto dealers only (or send CY/PY trial balance schedules)
 - [All Other Dealer LIFO Election Benefit Analysis Questionnaire](#) - for auto dealers only (or send CY/PY trial balance schedules)
 - [LIFO Tax Savings Calculator](#)
 - [How LIFO Works](#)
 - [How to Easily Implement LIFO](#)
- **Other LIFO resources**
 - [Auto Dealer IPIC Benefit Analysis Questionnaire](#)
 - [LIFO Methods, Rules & Regulations](#)
 - [IPIC LIFO Overview](#)
 - [Bureau of Labor Statistics Producer & Consumer Price Index Inflation History](#)

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