REQUEST FOR LIMITED TAX RELIEF FOR BUSINESSES USING DOLLAR-VALUE LIFO METHODS TO VALUE INVENTORIES & SUGGESTED FRAMEWORK FOR IMPLEMENTING RELIEF

Proposal Submitted to:

Hon. Charles P. Rettig
Commissioner
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Department of the Treasury

Hon. Michael J. Desmond
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Submitted by

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December 16, 2020

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Re: Request for Limited Tax Relief for Businesses Using Dollar-Value LIFO Methods to Value Inventories And Suggested Framework for Implementing Relief

Gentlemen:

Virtually every taxpayer doing business in the United States has suffered significant losses and interruptions due to the outbreak of the Coronavirus Disease (Covid-19) in March this year. For many, the devastating impact has steadily increased throughout the year, and it has become a disaster of nearly Biblical proportions. This was recognized when, in March, the President issued *Proclamation 9994* declaring that the Coronavirus disease (Covid-19) outbreak in the United States constitutes a National Emergency.[1]

On top of that, throughout the year, taxpayers in many areas have also suffered losses and significant business interruptions resulting from devastating hurricanes, floods and forest fires – further compounding their inability to carry on normal business operations and maintain ordinary and necessary desired inventory levels.

Many taxpayers identify the flow of goods through their inventories using the Last-In, First-Out (LIFO) assumption, and because of the complexity of their businesses, they have elected to compute the overall valuation of their inventories using Dollar-Value (LIFO) methods which the Regulations under Section 472 permit.[2]

(continued)

Due to the events above, when these taxpayers apply Dollar-Value LIFO methods to value their lower inventory levels at year-end, many will experience unforeseen adverse results because they will realize "paper profits" on which income taxes are payable. At the same time, these taxpayers have experienced reduced sales and profits while fixed overhead costs remained disproportionately high … a truly severe situation, created by economic conditions far beyond anyone's ability to control or successfully mitigate.

Accordingly, I am writing to request that Treasury and the IRS provide temporary relief for these taxpayers, with that relief to be effective for years ending on or after February 28, 2020. In support of this request, I am submitting a set of recommendations which could be adopted … or modified … to provide a framework for that relief. The accompanying case study – consisting of five sets of scenarios – shows the details for a model to achieve that relief. The application of these results and recommendations would be consistent with the underlying principles inherent in the Dollar-Value method LIFO Regulations.[3]

Contents

Recommendations

1. Amend Section 473 – *Qualified Liquidation of LIFO Inventories* – by adding a new Subsection. This Subsection would free taxpayers from the burdens of having to prove themselves entitled to relief. This will considerably lessen otherwise substantial administrative oversight burdens for the Treasury and the Internal Revenue Service.

2. ***Alternative Dollar-Value LIFO Method.*** Allow taxpayers to (elect to) use a substitute or surrogate historical cost level in determining the LIFO valuations of their inventories at the end of 2020. This historical cost level will continue to be reflected in each year in the succeeding 3-year (recovery) period … 2021, 2022 and 2023.

   This substitute inventory level would be determined by reference to the 3-year average historical cost level as of the end of the pre-liquidation year (i.e., determined as of Dec. 31, 2019 or other corresponding fiscal years ending in 2019).

3. ***Defer adjustment of the LIFO reserve for the pre-liquidation year until the end of the suspension period.*** Treat the 4-year period which includes the liquidation year (i.e., calendar year 2020) and the 3 years thereafter (i.e., 2021, 2022 and 2023) as a 4-year "suspension period." At the end of each year during the suspension period (2020-2024), taxpayers would compute their year-end inventory LIFO valuations based upon the historical average amount as a substitute for the actual cost amount in their 2020 LIFO valuation calculations.

   The net changes in the LIFO reserves that are computed at the end of 2020, 2021 and 2022 would be held "in suspense" (via Schedule M adjustments) and not given effect until the end of the fourth year (i.e., Dec. 31, 2023). At the end of the last year in the suspension period (i.e., Dec. 31, 2023), the taxpayer would make a single, lump-sum adjustment to increase or decrease the LIFO valuation of the inventory at the end of the pre-liquidation year (i.e., the balance as of Dec. 31, 2019) to the amount computed as the LIFO valuation of the taxpayer's inventory as of Dec. 31, 2023.

4. Require taxpayers who elect relief to include in their tax returns evidence confirming (1) their compliance with the requirements of Section 472 to use the LIFO method and (2) the overall reasonableness of their LIFO computations as of Dec. 31, 2019.

5. If taxpayers have included Forms 3115 to terminate their LIFO elections as part of their tax returns filed before relief becomes available, they should be allowed to revoke their elections to terminate LIFO so that they can take advantage of the relief procedures if they so desire.

In General

For more than 50 years, I have worked with clients using all types of LIFO methodologies.[4] Based on my experience, I believe that my recommendations and suggestions regarding a framework for their implementation could be of some assistance in your consideration of how to provide efficient, timely and effective relief for taxpayers who use Dollar-Value LIFO methods for valuing inventories.

My recommendations are applicable to all taxpayers using Dollar-Value methods, regardless of whether these methods are using sub-elections for double-extension, link-chain or IPIC (Inventory Price Index Computation) procedures. Double-extension and link-chain methods involve the taxpayer making determinations of inflation in their inventory based on internal evaluations (i.e., pricing) of the goods in ending inventory. IPIC methods permit taxpayers to use inflation indexes computed "externally" by reference to Producer Price Indexes or Consumer Price Indexes. IPIC LIFO valuation results can readily be converted to apply the recommendations herein.

Where Dollar-Value methods are used, each taxpayer's specific "facts and circumstances" and its unique LIFO layer history determine the correlation between (i) the amount of a taxpayer's decrease in ending inventory and (ii) the amount of additional tax to be paid as a result of the reduction in the LIFO reserve at the end of the year.

Although the LIFO layer history for each taxpayer reflects a "personalized" fact pattern, it is true for all Dollar-Value LIFO taxpayers that the amount of an increase or decrease in their LIFO reserves at year-end is determined by three factors:

1. The rate of inflation (determined either internally or externally) reflected in the cost of the goods in ending inventory,

2. The inventory levels at the beginning of the year and at the end of the year. These inventory levels must be expressed in both actual dollars and in base dollars (i.e., the base dollar equivalent amounts that represent the purchasing power of the dollar on the first day of the first year of the LIFO election), and

3. The build-up or accumulation of annual LIFO layers of increment (i.e., the LIFO layer history). In some cases, these annual layers may reflect reductions from their original amounts because a decrement incurred in a later year may have been carried back to reduce that previous year's amount.[5]

In anticipating a substantial decline in inventory, if panic sets in over the presumed consequences because the ending inventory is expected to be 25%, 30%, even 50% lower at year-end, that panic may be unfounded. The reason panic may be unfounded is that the percentage of repayment of the LIFO reserve is usually not proportionate to the percentage decrease in the ending inventory compared to the inventory at the beginning of the year. Where Dollar-Value methods are employed, a common result is that the LIFO reserve will actually increase at the end of the year, even though the ending inventory has substantially decreased.[6]

Given any specific combination of inflation rates and inventory levels over a period of years and the proper application of arithmetic to these facts, the amount of the LIFO reserve has to be an exact, precise dollar amount. This is true even if the assumptions made in determining the inflation indexes used in the calculations are somewhat subjective. The mathematics that drive proper Dollar-Value LIFO computations are not subjective. 1 + 1 will always equal 2, and 2 x 2 will always equal 4. If the LIFO reserve is not the exact amount that the mathematical proof requires, then an error has been made in computing the LIFO reserve … and that error should always be corrected.

Recommendation #1 – Exposition

> ***Amend Section 473 – Qualified Liquidation of LIFO Inventories – by adding a new Subsection. This Subsection would free taxpayers from the burdens of having to prove themselves entitled to relief. This will considerably lessen otherwise substantial administrative oversight burdens for the Treasury and the Internal Revenue Service.***

- In its present form, the requirements of Section 473 are ambiguous, at best, and insufficient to provide timely relief to help businesses cope with the effect of significant inventory reductions on their tax obligations for 2020.

- The *Presidential Proclamation on Declaring a National Emergency Concerning the Novel Coronavirus Disease (COVID-19) Outbreak* should make it unnecessary for taxpayers using the LIFO method to be required to justify their need for relief at this time. Requirements of this nature presently in Section 473 seem unnecessary in light of the significant disruption on our economy everywhere.

- I am aware that the Internal Revenue Service recently received a letter from the National Automobile Dealers Association (NADA) dated Nov. 20, 2020 requesting expedited relief for certain franchised automobile and truck dealers.[7]

    - Substantially all of NADA's proposal (7 pages) is devoted to making the case that substantial inventory interruptions have been experienced by its members and that the sources and blame for

these disruptions can be traced all over the world and are not the fault of the dealers. Clearly, the causes and results of these interruptions are significant enough to fall within the general tolerance for relief in the language of Section 473.

- Although NADA's proposal builds a strong case for the need for inventory liquidation relief by describing the devastating impact that Covid-19 has had on dealerships, I believe that NADA's proposal would not be in that industry's best interest because it straight-jackets its membership and automobile manufacturers into a labyrinth of Department of Energy procedures. NADA's proposal also invites countless other associations to barrage the Treasury/IRS with similar requests for relief for their specific industry and/or memberships.

- Is it not obvious that all businesses have been significantly affected to a similar degree and that evidence to make this case doesn't really need to be presented? Surely, Treasury and the IRS can relate to this, even though neither Agency has to receive, handle, store, display, attempt to sell – or deliver – merchandise … all activities dependent on employees being able to be present at work on a daily, regular basis.

- Under these circumstances, I believe there should not be any requirement that determinations be made by the Department of Energy or any other Agency of the government as a prerequisite for establishing eligibility for relief.

- The applicability of this new Subsection (Subsection (h)? … (**h**) stands for help!) would be specifically limited to qualified inventory liquidations occurring at the end of calendar year 2020 or any corresponding fiscal years ending on or after March 1, 2020.

  - If the impact of Covid-19 continues through 2021 substantially affecting year-end inventory levels, comparable/additional relief should be available.

- Section 473 was enacted in 1979, some 40 years ago, generally becoming effective after 1979. Regulations under Section 473 have not been issued since then in Proposed, Temporary or Final form.

  - My reading of the *Senate Report* and the *Conference Report* suggests that, when enacted, this provision was to be narrowly applied to a specific situation (Oil Crisis, embargo, etc.). If so, it seems that it was more likely to be applied in the context of taxpayers using the specific goods or unit method for valuing their LIFO inventory. The way the Specific Goods/Unit method operates is far different from the way the Dollar-Value method operates.

  - The Law and the *Committee Reports* specifically recognized this limitation. Both call for the Secretary to provide guidance in coordinating with the provisions of Section 472. In particular, the Conference Agreement states, "It is expected that the Secretary will issue Regulations regarding how this Section is to be applied in the case of a taxpayer using the 'dollar-value' method of LIFO inventory, consistent with the 'dollar-value' Regulations under Section 472."[8]

- Without Regulation guidance, taxpayers are likely to encounter serious difficulties in attempting to understand what kind of relief is available from the existing language of Section 473. Taxpayers seem to be "on their own" in trying to figure out just exactly what to do.

- More problematic, in my opinion, is that the *"gross income for the liquidation year"* can be affected by changes in the inventory level at the end of any one of possibly three succeeding years which make up the *replacement period*.

- Therefore, it would be more desirable from an administrative standpoint to avoid requiring taxpayers to make adjustments to their LIFO reserves at the end of the liquidation year (i.e., as of Dec. 31, 2020). Instead, it would be better to place the net effect of any relief adjustments in an appropriate subsequent year. See *Recommendation #3*.

Recommendation #2 – Exposition

> ***Alternative Dollar-Value LIFO Method. Allow taxpayers to (elect to) use a substitute or surrogate historical cost level in determining the LIFO valuations of their inventory at the end of 2020. This historical cost level will continue to be reflected in each year in the succeeding 3-year (recovery) period … 2021, 2022 and 2023. This substitute inventory level would be determined by reference to the 3-year average historical cost level as of the end of the pre-liquidation year (i.e., determined as of Dec. 31, 2019 or other corresponding fiscal years ending in 2019).***

- Again, referencing NADA's proposal for relief mentioned above, its request seems to be insufficient to deal with the LIFO inventories of its automobile and truck dealership members. During the last 50 years of my career, I have worked closely with automobile and truck dealerships and LIFO applications for their industries. The majority of automobile dealers use the Dollar-Value LIFO method, and more particularly, the Alternative LIFO Method for New Vehicles.[9] Accordingly, "LIFO relief" for these dealers should be specifically tailored to the Dollar-Value method applications, rather than to specific goods or unit method LIFO applications.

  - NADA's proposal seems to be insufficient to an even greater extent because it does not go far enough to address the broader population of taxpayers (who are not NADA members) who use Dollar-Value LIFO method for valuing their inventories and who similarly require relief.

- For businesses using Dollar-Value LIFO methods, the real consequence that needs to be addressed is not the presence of factors causing the reduction in an ending inventory. The real result for which relief should be sought is the postponement – for a reasonable amount of time – of the payment of a significant amount of tax that would otherwise be attributable to the decrease in the LIFO reserve which follows from a decrease in the inventory level at the end of the year.

- I propose that taxpayers be allowed to use an Alternative Dollar-Value LIFO method … And that its use be specifically limited to situations involving Covid-19 and other 2020 business disruptions.

- In that respect, they should be permitted to use a "substitute" or "surrogate" cost (instead of their actual cost) as their inventory level in the computation of the LIFO valuation of their inventory as of Dec. 31 2020. In other words, this substitute (higher dollar) amount would be used instead of their actual (lower) ending inventory amount in the LIFO calculations for 2020.

  - In computing the LIFO valuation of ending inventory for 2020, this substitute cost would be the average of the ending inventory cost amounts at the end of each of the 3 taxable years preceding the liquidation year. In other words, the 3-year historical average would reflect cost amounts as of Dec. 31, 2017, 2018 and 2019.

  - Taxpayers should be required to apply this approach to all classes of goods and/or pools currently subject to their LIFO elections.

- This would also apply to taxpayers with corresponding fiscal years ending in 2020.

- There is adequate precedent found in other Code Sections and/or Regulations for allowing taxpayers to use a substitute amount based upon actual prior year experience. This precedent has been allowed in order to simplify matters and relieve computational burdens based on more detailed analyses of multiple years' historical information. Typically, the historical reference period has been 3 years.

  - Most recently, the *CARES Act*[10] amended Section 163(j) to allow taxpayers to ***substitute (i.e., to elect to use)*** their Adjusted Taxable Income (ATI) amounts for the last year beginning in 2019 for their actual ATI amounts in 2020 in determining their interest expense deduction limitations for any year beginning in 2020.

  - In re-valuing LIFO inventories, the Regulations under Section 263A allow taxpayers to apply a revaluation factor based upon the average of their experience in the 3 years immediately preceding the year-of-change. This substitution approach is allowed when a Section 481(a) adjustment is required in connection with a change in accounting method which affects the LIFO valuations of the opening inventory in the year of change. This "short-cut" method is permitted regardless of how many years a taxpayer has been on LIFO. Reg. Sec. 1.263A-7(c)(2)(v).

  - Effective for years after 2017, small business taxpayers are eligible to use the cash method of accounting. The cash method is available for taxpayers that had average annual gross receipts for the three preceding tax years of $25 million or less.

- In some cases, a "lookback" period of 3 years might not be considered to be representative for purposes of determining the "average cost" substitute historical level. In these circumstances, there are several ways this 3-year historical reference period could be adjusted or limited to accommodate different fact patterns or scenarios.

  - For example, in a taxpayer's previous 5-year history, the inventory levels at the end of one or two of these years may have been unusually higher or lower than the other years. In this case, the highest and the lowest inventory levels could be disregarded, and the ending inventory levels of the other three years in the overall 5-year range could be used to compute the 3-year substitute historical cost average.

- The application of this recommendation should be as simple, straightforward and administratively less burdensome as possible. Therefore …

  - The computations of the LIFO valuation of the inventory in subsequent years would continue to reflect the result of using the substitute inventory cost of Dec. 31, 2020 for all purposes.

  - All historical LIFO layers as of Dec. 31, 2019 (i.e., as of the end of the pre-liquidation year) would retain their identities and respective LIFO valuations. These Dec. 31, 2019 layers would only change if they are affected by a net adjustment as of Dec. 31, 2023 which reduces that Dec. 31, 2019 (pre-liquidation year) LIFO reserve.

  - There would be no adjustment or revaluation of the LIFO layers as of Dec. 31, 2019 because the relief provided should not be regarded as a change in accounting method that requires a Section 481(a) adjustment.

- Rebasing the indexes to 1.000 as of the beginning-of-the-year (i.e., as of Dec. 31, 2019/Jan. 1, 2020) as a result of using the substitute cost in the LIFO computations for 2020 could easily be made a requirement. If required, this rebasing to 1.000 would not change the LIFO valuation of each historical layer or the contribution made by each historical layer to the LIFO reserve. In some situations where changes in LIFO methods are involved, the Section 472 Regulations require the rebasing of indexes to 1.000 as of the beginning of a year-of-change.

Recommendation #3 – Exposition

> ***Defer adjustment of the LIFO reserve for the pre-liquidation year until the end of the suspension period. Treat the 4-year period which includes the liquidation year (i.e., calendar year 2020) and the 3 years thereafter (i.e., 2021, 2022 and 2023) as a 4-year "suspension period." At the end of each year during the suspension period (2020-2024), taxpayers would compute their year-end inventory LIFO valuations based upon the historical average amount as a substitute for the actual cost amount in their 2020 LIFO valuation calculations.***
>
> ***The net changes in the LIFO reserves computed at the end of 2020, 2021 and 2022 would be held "in suspense" (via Schedule M adjustments) and not given effect until the end of the fourth year (i.e., Dec. 31, 2023). At the end of the last year in the suspension period (i.e., Dec. 31, 2023), the taxpayer would make a single, lump-sum adjustment to increase or decrease the LIFO valuation of the inventory at the end of the pre-liquidation year (i.e., the balance as of Dec. 31, 2019) to the amount computed as the LIFO valuation of the taxpayer's inventory as of Dec. 31, 2023.***

- As indicated previously, holding the year of liquidation (i.e., 2020) open and subjecting it to adjustments that would be determined in subsequent years unduly complicates matters. This could create additional complications because of the recent expansion of the net operating loss carryback rules opening up 5 previous years to tentative claims for refund (Forms 1139 or 1045) or amended returns.

- It is probable to expect that in many cases, Dollar-Value LIFO inventory levels are likely to be restored to some extent, if not, fully within a few years after 2020. However, the amounts by which inventory levels may be restored in future years and how quickly that may happen is far from reasonably estimable.

- Under this recommendation, the impact of the lower inventory level in the liquidation year (i.e., as of Dec. 31, 2020) would be determined year-by-year during the 4-year period (2020 through 2023) and held "in suspense" for the 3-year period following the year of liquidation.

  - For 2020 LIFO computation purposes, the taxpayer would substitute the 3-year historical average cost for the actual ending inventory amount. The taxpayer would continue to carry forward the results of the 2020 computation in valuing its ending inventories for the years 2021 through 2023 for purposes of determining increments or decrements.

  - As of Dec. 31, 2023, taxpayers would adjust the Dec. 31, 2019 LIFO reserve to reflect the overall net difference.

- This recommendation would apply to all taxpayers using Dollar-Value LIFO methods. These methods include the double-extension method, the link-chain method and the IPIC (Inventory Price Index Computation) method. These methods all are based upon the same underlying computational principles.

- The effect of this approach would not be to fully forgive the difference in taxable income due to the LIFO decrement in the liquidation year. Instead, this approach would carry the potential impact of that difference forward … And subject the net impact over four years to be accounted for at the end of 2023 based on the inventory level at the end of 2023.

  - In other words, LIFO taxpayers would receive relief by (i) the use of the higher substituted cost as the inventory amount at Dec. 31, 2020 in the LIFO computations for the years in the suspension period, and (ii) the postponement until 2023 of the net adjustment for the difference in the LIFO reserves.

  - The amount of the net adjustment for this difference could be included in income in 2023, either in full or to some lesser extent … for example subject to a "hair-cut" of 10%, 15% or some other amount.

  - This lump-sum net adjustment should not be required to be made as of the end of the year when the taxpayer has restored its inventory level to the same (or a greater) amount of the pre-liquidation year (i.e., Dec. 31, 2019) inventory level. The net adjustment should be held in abeyance until Dec. 31, 2023. This differs in result from the definition of a "replacement year" currently in Section 473(d) which provides that the replacement period ends as soon as "the replacement of the LIFO goods is completed."

- The benefit of this approach is its simplicity and ease of administrative burdens once the rigors of the Dollar-Value method calculation have been made. There are no further adjustments to the inventory in subsequent years as a result of this benefit.

- The effect of this approach is best illustrated by the summary included in Sets 1(e) and 2(e) of the case study scenarios. In this case, the ending inventory has increased gradually over 2021, 2022 and 2023 to the pre-liquidation level.

  The LIFO reserve balance at the end of the pre-recovery period (as of Dec. 31, 2019) would be frozen (i.e., remain unchanged) during the recovery period. In other words, any adjustments to the LIFO reserve balances during the recovery period would be "suspended." Only the net adjustment amount would be recorded to either increase or decrease the LIFO reserve to the appropriate amount as of Dec. 31, 2023.

  LIFO Reserve at Dec. 31, 2019/Jan. 1, 2020 in the amount of $9,204,088 is increased by $156,035 to $9,360,123 as of Dec. 31, 2023.

  This net adjustment of $156,035 over the period of 4 years (2020 - 2023) reflects an increase due to inflation in the amount of $1,607,245, and this is offset by a reduction in (or payback of) the LIFO Reserve due to shifting of the decrement of $1,451,210 in 2021. ***The relief the taxpayer has received is that it has avoided having to take the net decrease in the LIFO reserve as Dec. 31, 2020 (i.e., $1,605,558) into income in its 2020 income tax return.***

This has allowed the taxpayer to receive the benefit of 4 years' worth of inflation ($1,607,245), and it reflects the impact of the decrement as calculated using the substitute inventory level ($1,451,210), which nets to an increase of $156,035.

Compared to using the actual cost method for 2020, using the historical average (substitute) method in the calculations over the period has resulted in a $240,206 increase in the LIFO reserve due to the inflation and a further increase in the LIFO reserve of $448,126 because that amount reflects less LIFO reserve payback because of the shifting of the decrement from 2020 to 2021 in slightly different amounts.

- The obvious effect is that the impact of the decrement in 2020 has been shifted to 2021 (or possibly also to 2022 and 2023 in other situations). The consequence of that shift is offset by inflation reflected in the inventory through the end of the entire suspension period.

Recommendation #4 – Exposition

Require taxpayers who elect relief to include in their tax returns evidence confirming (1) their compliance with the requirements of Section 472 to use the LIFO method and (2) the overall reasonableness of their LIFO computations as of Dec. 31, 2019.

- Over the years, I have represented taxpayers at both the IRS Agent and Appeals levels and in conferences in the National Tax Office where the taxpayer's LIFO computations were far from accurate and needed to be, at a minimum, mathematically corrected. As a result, I believe that taxpayers availing themselves of relief at this time should come to the IRS with "clean hands."

- Accordingly, I believe a taxpayer electing to use the recommended "Dollar-Value method relief " – in whatever its final form may take – should be required to include with the tax return for the liquidation year, at a minimum, certain certifying information, including …

  - A statement that the taxpayer has complied in all years of its LIFO election with the financial statement conformity requirements set forth in the Regulations.

  - A statement that the taxpayer has previously filed Form 970 to elect to use the LIFO method.

  - A statement or schedule showing for each year of the LIFO election the cost of the ending inventory subject to the LIFO election (for each pool) and the inflation rate that was applied to that inventory each year. This requirement would enable the IRS to review the reasonableness of the computation of the LIFO reserves and the contribution to the LIFO reserve at the end of each year made by each historical layer.

  - A statement that the taxpayer has maintained books and records to support its LIFO valuations for all preceding years.

  - A statement of election to use this new method.

- Revenue Procedure 79-23 provides that, as a condition to the adoption and use of the LIFO method, taxpayers are required to maintain adequate books and records as well as comply with several other conditions.[11] Therefore, taxpayers in compliance with the Dollar-Value LIFO Regulations should not have any problems with providing this information … and this information would save the Internal

Revenue Service considerable time and effort that it might otherwise have to expend in reviewing the accuracy of the taxpayer's LIFO computations to date.

Recommendation #5 – Exposition

If taxpayers have included Forms 3115 to terminate their LIFO elections as part of their tax returns filed before relief becomes available, they should be allowed to revoke their elections to terminate LIFO so that they can take advantage of the relief procedures if they so desire.

- Taxpayers faced with the impact of large inventory reductions in their LIFO reserves may have decided to terminate their LIFO elections for 2020 (i.e., as of Jan. 1, 2020). Terminating their LIFO elections would allow them to avoid having to take 100% of the impact of the decrement at the end of 2020 in their income tax returns for 2020.
  - Instead, by terminating their LIFO elections for 2020, they would be allowed to take the amount of their LIFO reserves as of Dec. 31, 2019 into income as a Section 481(a) adjustment ratably over a period of 4 years … (25% in 2020 … 25% in 2021 … 25% in 2022 … 25% in 2023). For some, this might have been a preferable alternative.
- Absent any expectation of relief, these taxpayers may have believed it would be more beneficial to terminate their LIFO election than to remain on LIFO and absorb the entire impact of a substantial inventory reduction in their LIFO calculations in their 2020 tax return.
- Taxpayers having fiscal years already ended in 2020 may have already included Forms 3115 to terminate their LIFO elections in their income tax returns. Calendar year taxpayers may be filing their 2020 income tax returns before a decision is reached to provide relief in one form or another. Generally, an election to terminate a LIFO election cannot be revoked.
- If the decision is made to provide relief for Dollar-Value LIFO taxpayers, it would seem fair to those who previously filed returns in which they terminated their LIFO elections to be given the opportunity to revoke those elections. When filing their returns, they would have had no reasonable expectation that there might be a better alternative.
- Also, in this regard, the requirement for compliance with the financial statement conformity requirements for 2020 should be waived since these taxpayers would have thought they no longer had LIFO elections, and therefore, did not have to satisfy these requirements.

Case Study – Facts & Comments

Facts …

- The taxpayer has been on LIFO for 35 years. Since making its election in 1985, it has made numerous changes in LIFO accounting methods, and its historical LIFO layers have been rebased to 1.000 several times during the period.

- At the end of 2020, the taxpayer's inventory dropped to $23,800,000 (post-liquidation amount) from $38,256,910 (pre-liquidation amount) the year before.

- The same inflation rate of 1.25% per year is assumed for all years 2020-2023.

- 3-year historical average of ending inventories at cost (Dec. 31, 2017 - 2019) is $44,890,402.

December 31, 2017	42,328,190
December 31, 2018	54,086,107
December 31, 2019	38,256,910
3-Year Total	134,671,207
	÷ 3
3-Year Average	44,890,402

- Use of the substitute cost level in lieu of the actual cost amount as of Dec. 31, 2020 increases the 2020 ending inventory by $21,090,402 or 88.6% ($44,890,402 - $23,800,00).

  - This increase in actual dollars of $21,090,402 converts to an increase in base dollars of $15,679,378 ($33,373,170 - $17,693,792). ($21,090,402 ÷ 1.345105 = $15,679,372).

  - As a result, instead of using the actual cost at Dec. 31, 2020 and having a decrement of $11,103,317 (expressed in base dollars), there is an increment of $4,576,061 (using the substitute 3-year average cost). The sum of these two amounts is $15,682,378 (the amount of increase expressed in base dollars – per above).

  - By using the substitute cost level, there is no decrement computed for 2020. This avoids the reduction in the LIFO reserve of $1,899,399 otherwise due to carrying back the decrement (if the actual cost level were used).

  - If the taxpayer does not obtain relief, it will have to pick up $1,605,558 … the decrease in its LIFO reserve as of Dec. 31, 2020 … in income in its 2020 income tax return.

- To show the consistency of all of the case study results with Dollar-Value LIFO principles, the changes in the LIFO reserves for all years are supported (i) by proofs/reconciliations of the contributions to the LIFO reserve by each layer and (ii) by analyzing the two factors that determine the net change in the LIFO reserve for the year. For taxpayers using the Dollar-Value method and valuing increments by using the cumulative index at the end of each respective year (i.e., a dual-index approach is not used in valuing increments), these factors are (i) the effective rate of inflation for the year and (ii) the increase or decrease in the ending inventory (at cost), expressed in base dollars.

- ***Actual Dollars vs. Base Dollars.*** As mentioned previously, when working with LIFO computations, all calculations involving "actual dollars" are reduced to their expression in terms of base dollars (i.e., the equivalent purchasing power of the dollar as of the first day of the year when the LIFO election was made).

  - To simplify the discussion and presentation of the various year-end inventory levels at the end of 2021, 2022 and 2023, these amounts are expressed in actual dollars.

- If it were desired to have exactly the same amount of purchasing power reflected in the ending inventory computations, the inventory levels would be slightly larger in order to take into account the effect or impact of inflation. More goods could be purchased for $38,256,910 at Dec. 31, 2019 – the pre-liquidation level – than could be purchased for that same amount of dollars ($38,256,910) at Dec. 31, 2023.

  - This *purchasing power equivalency* is exactly what Dollar-Value LIFO method computations are all about.

  - Accordingly, to reflect the exact purchasing power equivalence at Dec. 31, 2023, the $38,256,910 amount would have to be increased to reflect the cumulative effect of inflation during the period from the end of 2019 to the end of 2023. For example, if the inflation rates for 2020, 2021, 2022 and 2023 were 1.10%, 1.65%, 1.40% and 1.33%, respectively, the equivalent purchasing power at the end of 2023 would require an actual inventory cost of $40,396,555[12] … an additional $2,139,645.

- The computations and discussions relating to 5 scenarios in the case study are related to the same terms and definitions in Section 473(d) for "qualified liquidation," "liquidation year," "replacement year," and "replacement period."[13] In connection with using the historical 3-year average substitute, the year immediately preceding the liquidation year is referred to as the "pre-liquidation year."

Case Study – Summary of Results for 5 Sets of Assumed Changes in Year-End Inventory Levels

- Sets 1(a) & 2(a) … For 2021 - 2023, the year-end inventory levels remain at the same level as the actual Dec. 31, 2020 level ($23,800,000). Throughout the entire 3-year recovery period, the taxpayer's inventory level has not been built back up to the Dec. 31, 2019 pre-liquidation level of $38,256,910.

  - As of Dec. 31, 2023, the net adjustment is a ***decrease*** of $867,410 to the Dec. 31, 2019 LIFO reserve.

- Sets 1(b) & 2(b) … At the end of 2021, the ending inventory has returned to the Dec. 31, 2019 (pre-liquidation) actual level ($38,256,910). The inventory remains at that level at the end of 2022 and 2023.

  - As of Dec. 31, 2023, the net adjustment is an ***increase*** of $1,643,531 to the Dec. 31, 2019 LIFO reserve.

- Sets 1(c) & 2(c) … For 2021 ending inventory remains at 2020 actual liquidation level ($23,800,000) and the inventory increases to the pre-liquidation level ($38,256,910) in 2022 and the inventory stays at that level in 2023. In other words, it takes 2 years (2021 and 2022) for the inventory level to return to the pre-liquidation level. Accordingly, by the end of the second year of the recovery period (Dec. 31, 2022), the taxpayer's inventory level has returned to the pre-liquidation level.

  - As of Dec. 31, 2023, the net adjustment is a ***decrease*** of $583,544 to the Dec. 31, 2019 LIFO reserve.

- Sets 1(d) & 2(d) … For 2021 and 2022 the ending inventories remain at the 2020 actual liquidation level ($23,800,000), and the inventory increases to the pre-liquidation level ($38,256,910) in 2023. In other words, it takes the entire 3-year recovery period for the inventory level to return to the pre-liquidation level. Accordingly, by the end of the third year (Dec. 31, 2023), the taxpayer's inventory level has returned to the pre-liquidation level of $38,256,910.

- As of Dec. 31, 2023, the net adjustment is a ***decrease*** of $811,360 to the Dec. 31, 2019 LIFO reserve.

- Sets 1(e) & 2(e) … For 2021, 2022 and 2023 ending inventories increase each year by one-third of liquidation amount. (Liquidation amount is $14,456,910 [$38,256,910 - $23,800,000 ... Increase is $4,818,970 during each year].) By the end of the third year of the recovery period (Dec. 31, 2023), the taxpayer's inventory level has returned to the Dec. 31, 2019 pre-liquidation level ($38,256,910).

  - As of Dec. 31, 2023, the net adjustment is an ***increase*** of $156,035 to the Dec. 31, 2019 LIFO reserve.

- See the charts immediately following this page.

Conclusion

Schedules are attached showing all the computations and supplementary discussions. These explain the results which essentially reflect a trade-off in which the taxpayer waits 4 years, to the end of 2023, before realizing the net effect of any advantages of using its LIFO election. In the process, the taxpayer has avoided the disadvantage of having to realize a significant increase in income in 2020 due to the unforeseen and uncontrollable drop in inventory level. In addition, the taxpayer has been able to continue the use of the LIFO method, rather than having to terminate it.

In a sense, my recommendations mirror my experience over many years in situations where it was desirable to propose a compromise with the IRS to try to reach a mutually acceptable resolution of an issue where neither party was likely to be completely satisfied with the end result. It seems that a good compromise is one where both parties feel like they have left something on the table, but they can't go back to try to get it.

Given the complexities of the computations involved and the uncertainty we all have over what may happen in the next few years, perhaps this suggested framework for relief – or some modification of it – will be of benefit to taxpayers using Dollar-Value LIFO methods, and to the Treasury, and to the Internal Revenue Service.

Respectfully,

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Willard J. De Filipps, CPA, PC
De Filipps University

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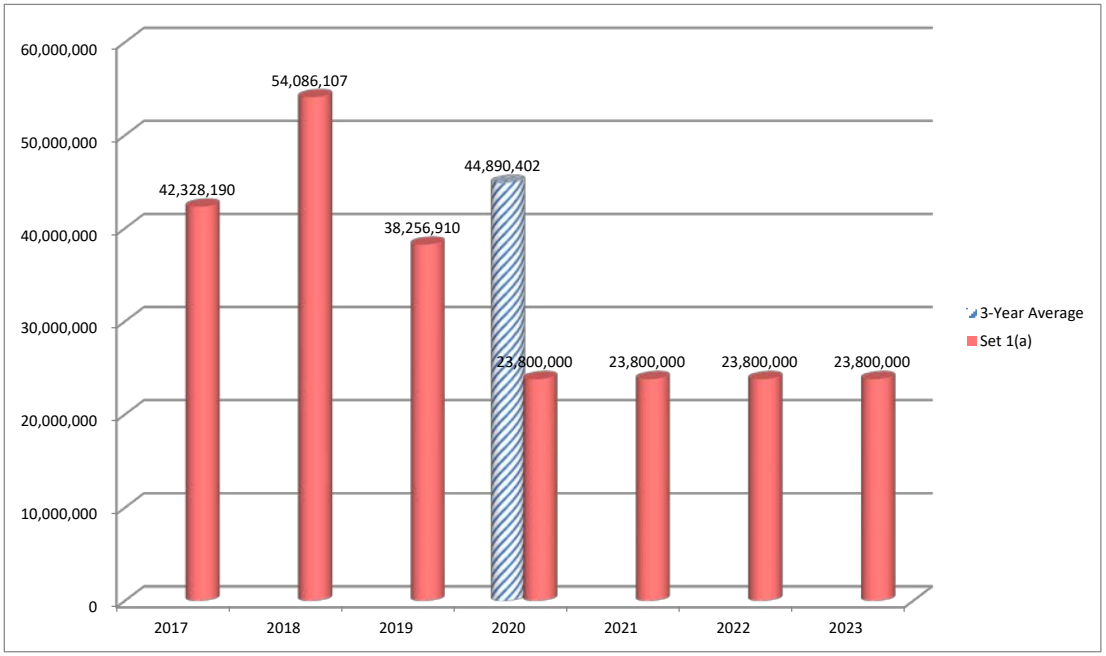
Footnotes … Follow immediately after the Charts

Facts & Summary of Results for Case Study Sets 1(a) & 2(a)

For 2021 through 2023, Taxpayer's Year-End Inventory Levels Are Not Built Back Up to the Dec. 31, 2019 Pre-Liquidation Level

Actual (Historical) Cost Dec. 31, 2017 - 2020 **Projected 3-Year Recovery Period**



	2017	2018	2019	2020	2021	2022	2023
3-Year Average				44,890,402			
Set 1(a)	42,328,190	54,086,107	38,256,910	23,800,000	23,800,000	23,800,000	23,800,000

Sets 1(a) & 2(a) … For 2021 - 2023, the year-end inventory levels remain at the same level as the actual Dec. 31, 2020 level ($23,800,000). Throughout the entire 3-year recovery period, the taxpayer's inventory level has not been built back up to the Dec. 31, 2019 pre-liquidation level of $38,256,910. The 3-year average ending inventory level is $44,890,402. This amount is substituted for/used in the LIFO calculations instead of the actual lower cost.

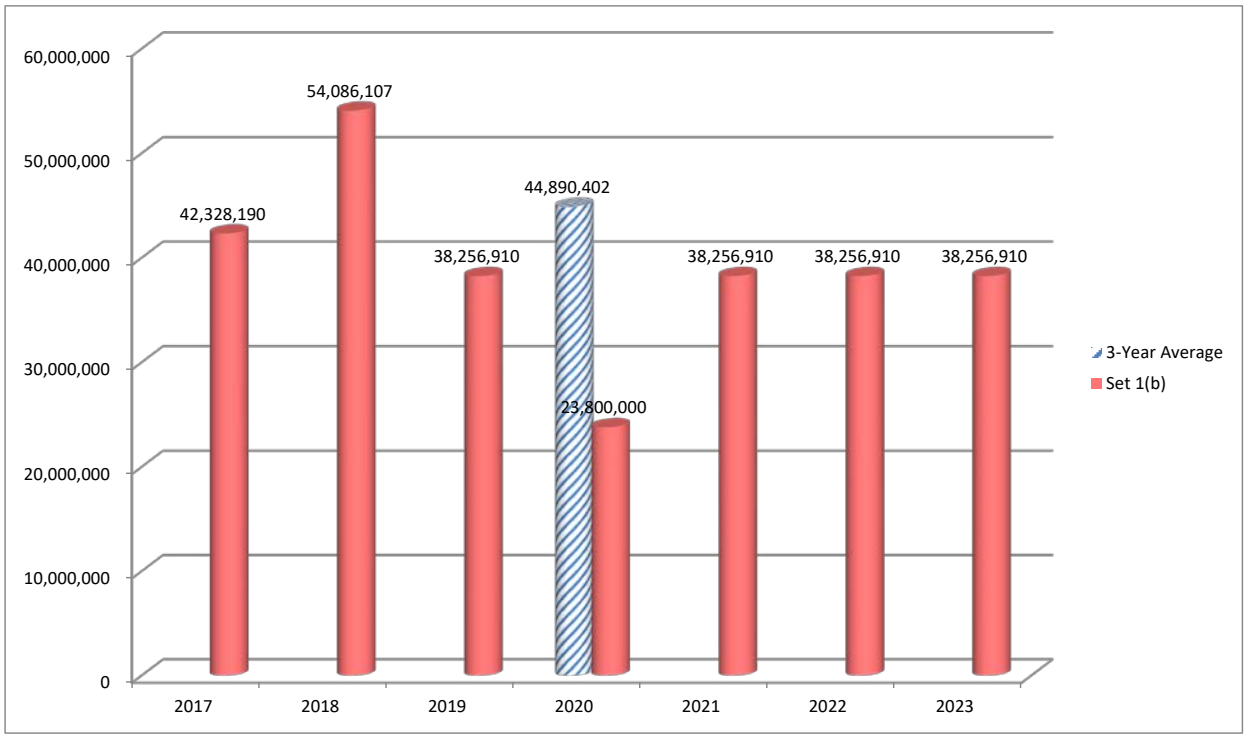
Summary of Results for Case Study Sets 1(a) & 2(a)

1. Impact of the decrement in the amount of $1,899,399 in 2020 (if actual cost is used) is increased during the period from 2021 through 2023 by $143,333 in 2023 for a total decrement impact of $2,042,732. If the historical substitute cost method is used, the 2020 decrement is shifted to 2021 and becomes $2,125,353; in addition small amounts of decrement carryback are reflected in 2022 ($49,336) and 2023 ($52,377) for a total decrement impact under this substitute cost method of $2,227,066. The net amount of the difference in the decrement carryback impact is $184,334. This is in contrast to the impact of the decrement that would have been felt in 2020 ($1,899,399) if the actual cost method had been used that year.
2. Throughout the entire 3-year recovery period, the taxpayer's inventory level has not been built back up to the Dec. 31, 2019 pre-liquidation level of $38,256,910. The entire impact of inventory liquidation (decrement) incurred in 2020 is shifted to 2021.
3. Using the substitute cost method, there is additional inflation of $184,385 in 2020 because of the higher amount of base dollars avoided the decrement in base dollars computed for that year ($11,103,317 x 0.016606 or [1.345105 - 1.328498]).
4. Instead of having a decrease in the LIFO reserve of $1,605,572 in 2020, using the substitute cost method results in a small increase in the LIFO reserve for 2020 of $478,212. However, under this method in 2021, there is a net decrease in the LIFO reserve of $1,831,563.
5. At the end of 2021, there is the possibility that the ending inventory levels in the remaining 2 years of the recovery period may be increased to the pre-liquidation level. Because of this possibility, any adjustment to reflect the involuntary liquidation of inventory at Dec. 31, 2020 should be postponed until the end of the 3-year recovery period.
6. The computations of the LIFO valuations and the LIFO reserves for 2021 and 2022 and 2023 under both methods (actual cost and substitute cost) are identical … when made with the "knowledge" that the inventory liquidation amount was never restored.
7. Accordingly, it may be desirable to postpone the taxpayer's adjustment for relief until the end of 2023 (i.e., until the end of the 3-year recovery period). This approach may be more desirable for equitable purposes or more logically consistent with adjustments that would be made under the other case study scenarios.
8. If the adjustment for relief (in this case) is postponed until Dec. 31, 2023, when it is known for a fact that the inventory levels were never restored, the amount of the postponed adjustment is $867,410.
9. If the adjustment for relief (in this case) is postponed until Dec. 31, 2023, then the amount of the LIFO reserve at Dec. 31, 2019/Jan. 1, 2020 ($9,204,088) would be decreased by $867,410 to $8,336,678 as of Dec. 31, 2023.
10. The overall effect of postponing the adjustment is to allow the taxpayer to reduce the amount of the impact of the decrement incurred in 2020 by the amount of inflation reflected in the inventory over the 4-year period (2020 through 2023). At that time, the taxpayer would reflect a single, lump-sum adjustment to increase income (i.e., by reducing the LIFO reserve) by $867,410. The relief to the taxpayer comes in the form of allowing it to postpone the impact of its decrease in inventory in 2020 for 3 years.
11. As of Dec. 31, 2023, the LIFO layer histories are identical regardless of whether they are computed under the substitute cost calculation method or the actual cost method. They reflect base dollars of $17,046,523 valued at $15,463,322, and the LIFO reserve at that date under either method is $8,336,678 ($23,800,000 - $15,463,322).
12. For 2024 and subsequent years' LIFO calculations, the taxpayer would continue to use this LIFO layer history as calculated under the 3-year average substitute cost method.

Facts & Summary of Results for Case Study Sets 1(b) & 2(b)

At Dec. 31, 2021, the End of the First Year After the Involuntary Liquidation , the Taxpayer's Inventory Level Has Returned to the Pre-Liquidation Level

Actual (Historical) Cost Dec. 31, 2017 - 2020 **Projected 3-Year Recovery Period**



	2017	2018	2019	2020	2021	2022	2023
3-Year Average				44,890,402			
Set 1(b)	42,328,190	54,086,107	38,256,910	23,800,000	38,256,910	38,256,910	38,256,910

Sets 1(b) & 2(b) … At the end of 2021, the ending inventory has returned to the Dec. 31, 2019 (pre-liquidation) actual level ($38,256,910). The inventory remains at that level at the end of 2022 and 2023. In other words, by the end of the first year of the recovery period (i.e., as of Dec. 31, 2021), the taxpayer's inventory level has returned to the Dec. 31, 2019 pre-liquidation level.

Summary of Results for Case Study Sets 1(b) & 2(b)

1. Impact of the decrement in the amount of $1,899,336 in 2020 (if actual cost is used) is increased by $5,832 in 2023 for a total decrement impact of $1,905,231. If the historical substitute cost method is used, small amounts of decrement carryback are reflected in 2021 ($104,088), 2022 ($70,666) and 2023 ($76,850) for a total decrement impact under this method of $251,604. The net amount of the difference in the decrement carryback impact is $1,653,627. This is in contrast to the impact of the decrement that would have been felt in 2020 ($1,899,399) if the actual cost method had been used that year.

2. Technically, the recovery period is 1 year ending Dec. 31, 2021. If the LIFO reserve balances under the different methods were adjusted as of that date (Dec. 31, 2021), the LIFO reserve adjustment would be an increase of $846,432 (from $9,204,088 at Dec. 31, 2019 to $10,050,520 at Dec. 31, 2021). The net increase in the LIFO reserve for the 2-year period as of Dec. 31, 2021 would reflect two years' inflation in the amount of $950,520 ($478,212 for 2020 and $472,308 for 2021). This adjustment would also reflect a reduction of $104,088 for the payback in the LIFO reserve based upon the decrement of $5,282,712. ($846,432 = $950,520 - $104,088). This would bring the LIFO reserve at Dec. 31, 2021 up to $10,050,520.

   The effect of the relief is that (1) the taxpayer is treated as if the liquidation in 2020 had not occurred, (2) the taxpayer continues to use the higher historical average cost substitute method for its LIFO calculations going forward, (3) the taxpayer is allowed to reflect the net benefit of inflation in its LIFO adjustments for 2022 and 2023 ($401,641 + $395,458 = $797,099), and (4) the taxpayer is allowed to deduct $846,432 in its 2021 income tax return.

3. *Alternatively*, it may be desirable to postpone the taxpayer's adjustment for relief until the end of 2023 (i.e., until the end of the 3-year recovery period, even though, technically, the recovery period was shortened to the end of 2021 because at that time, the inventory was restored to the pre-liquidation level). This approach may be more desirable for equitable purposes or more logically consistent with adjustments that would be made under the other case study scenarios.

   If the adjustment is postponed until Dec. 31, 2023, the amount of the postponed adjustment is $1,643,531. This has not been spread over the interim period which would happen if $846,432 of this amount were accelerated into a deduction in 2021 and $401,641 was accelerated as a deduction in 2022.

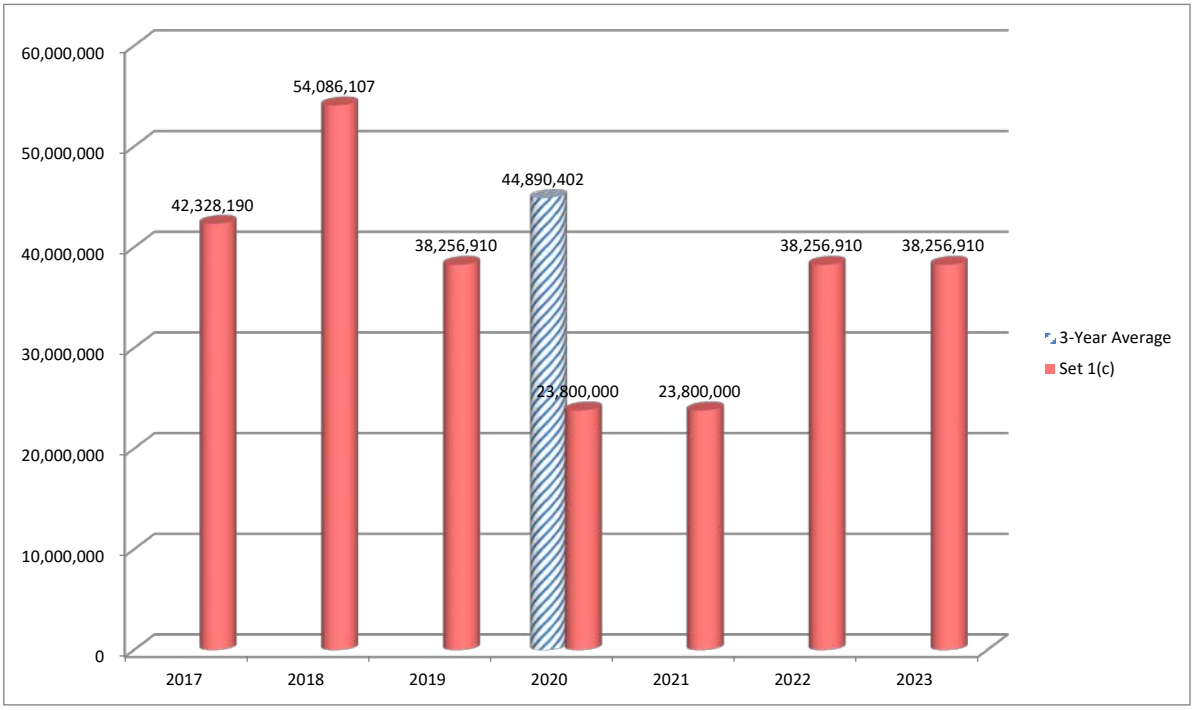
4. If the alternative (#3 above) of postponing the adjustment for relief until 2023 is followed, then the amount of the LIFO reserve at Dec. 31, 2019/Jan. 1, 2020 ($9,204,088) would be increased by $1,643,531 to $10,847,619 as of Dec. 31, 2023.

5. The overall effect of postponing the adjustment is to make the taxpayer wait until 2023 to get the benefit of a single, lump-sum deduction that, on a year-by-year basis would average to $410,000 per year.

6. In 2024, the LIFO layer history through Dec. 31, 2023 as computed under the substitute cost calculation method reflects base dollars of $27,401,148 valued at $27,409,292. For 2024 and subsequent years' LIFO calculations, the taxpayer would continue to use this LIFO layer history as calculated under the 3-year average substitute cost method.

Facts & Summary of Results for Case Study Sets 1(c) & 2(c)

The Taxpayer's Inventory Remains Low for 1 More Year; Then It Returns to the Pre-Liquidation Level at the End of the Second Year



	2017	2018	2019	2020	2021	2022	2023
3-Year Average				44,890,402			
Set 1(c)	42,328,190	54,086,107	38,256,910	23,800,000	23,800,000	38,256,910	38,256,910

Sets 1(c) & 2(c) … For 2021 ending inventory remains at 2020 actual liquidation level ($23,800,000) & the inventory increases to the pre-liquidation level ($38,256,910) in 2022 and the inventory stays at that level in 2023. In other words, it takes 2 years (2021 & 2022) for the inventory level to return to the pre-liquidation level. Accordingly, by the end of the second year of the recovery period (Dec. 31, 2022), the taxpayer's inventory level has returned to the pre-liquidation level and the recovery period ends at that time.

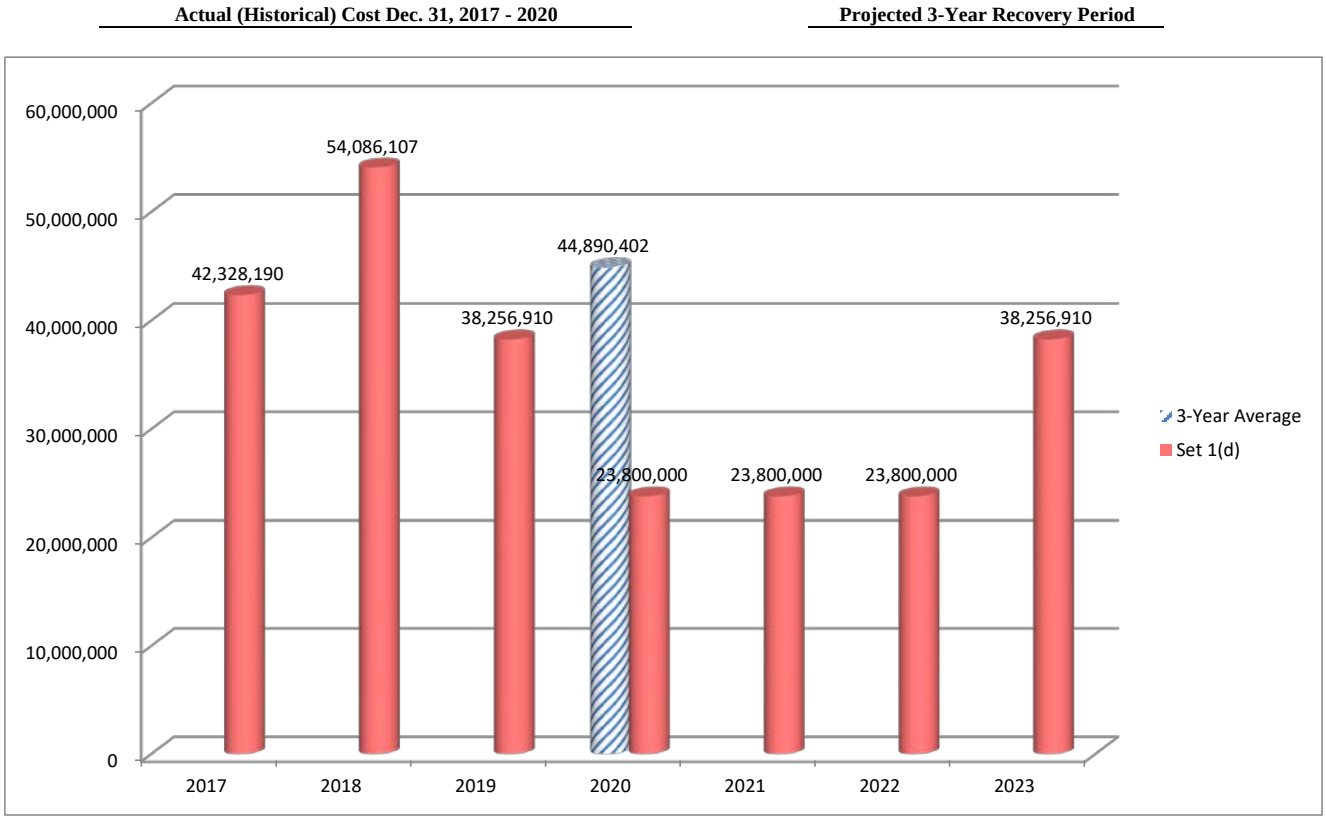
Summary of Results for Case Study Sets 1(c) & 2(c)

1. The impact of the decrement in the amount of $1,899,336 in 2020 (if actual cost is used) is increased by $41,620 in 2021 for a total decrement impact of $1,941,019. If the historical substitute cost method is used, the decrement is shifted in 2021 and becomes $2,125,390. The net amount of the difference in the decrement carryback impact is $184,371. This is in contrast to the impact of the decrement that would have been felt in 2020 ($1,899,399) if the actual cost method had been used that year.
2. Technically, the recovery period is 2 years ending Dec. 31, 2022. If the LIFO reserve balances under the different methods were adjusted as of that date (Dec. 31, 2022), the LIFO reserve adjustment would be a decrease of $1,055,851 (from $9,204,088 at Dec. 31, 2019 to $8,148,237 at Dec. 31, 2022). The net decrease in the LIFO reserve for the 3-year period as of Dec. 31, 2022 would reflect three years' inflation in the amount of $1,069,539 ($478,212 for 2020, $293,827 for 2021 and $297,499 for 2022). This adjustment would be offset by a reduction of $2,125,390 for the payback in the LIFO reserve due to the decrement. This net adjustment of $1,055,851 would bring the LIFO reserve at Dec. 31, 2022 down to $8,148,236.

   The effect of the "relief" penalizes the taxpayer for having built up its inventory at the end of the second year because the taxpayer is not allowed to get the benefit of inflation experienced during the third year (2023) if the adjustment were made at the end of the 3-year recovery period.
3. *Alternatively*, it may be desirable to postpone the taxpayer's adjustment for relief until the end of 2023 (i.e., until the end of the 3-year recovery period, even though, technically, the recovery period was shortened to the end of 2022 because at that time, the inventory was restored to the pre-liquidation level). This approach may be more desirable for equitable purposes or more logically consistent with adjustments that would be made under the other case study scenarios.
4. If the alternative (#3 above) of postponing the adjustment for relief until 2023 is followed, then the amount of the LIFO reserve at Dec. 31, 2019/Jan. 1, 2020 ($9,204,088) would be decreased by $583,544 to $8,620,544 as of Dec. 31, 2023.
5. At the end of 2023, the taxpayer does realize a payback (or reduction) of a portion of its LIFO reserve because its inventory level has not grown beyond the pre-liquidation level. However, adjustment at that time (i.e., a reduction of $583,544) has (1) delayed until 2023 the impact that would have been felt a few years sooner and (2) reduced the amount of the adjustment because it includes the impact of inflation reflected in that inventory throughout the years.
6. As of Dec. 31, 2023, the LIFO layer histories are identical regardless of whether they are computed under the substitute cost calculation method or the actual cost method. They reflect base dollars of $27,401,148 valued at $29,636,366, and the LIFO reserve at that date under either method is $8,620,544 ($38,256,910 - $29,636,366).
7. For 2024 and subsequent years' LIFO calculations, the taxpayer would continue to use this LIFO layer history as calculated under the 3-year average substitute cost method.

Facts & Summary of Results for Case Study Sets 1(d) & 2(d)

The Taxpayer's Inventory Remains Low for 2 More Years; Then It Returns to the Pre-Liquidation Level at the End of the Third Year



	2017	2018	2019	2020	2021	2022	2023
3-Year Average				44,890,402			
Set 1(d)	42,328,190	54,086,107	38,256,910	23,800,000	23,800,000	23,800,000	38,256,910

Sets 1(d) & 2(d) … For 2021 & 2022 the ending inventories remain at the 2020 actual liquidation level ($23,800,000), and the inventory increases to the pre-liquidation level ($38,256,910) in 2023. In other words, it takes the entire 3-year recovery period for the inventory level to return to the pre-liquidation level. Accordingly, by the end of the third year of the recovery period (Dec. 31, 2023), the taxpayer's inventory level has returned to the pre-liquidation level of $38,256,910.

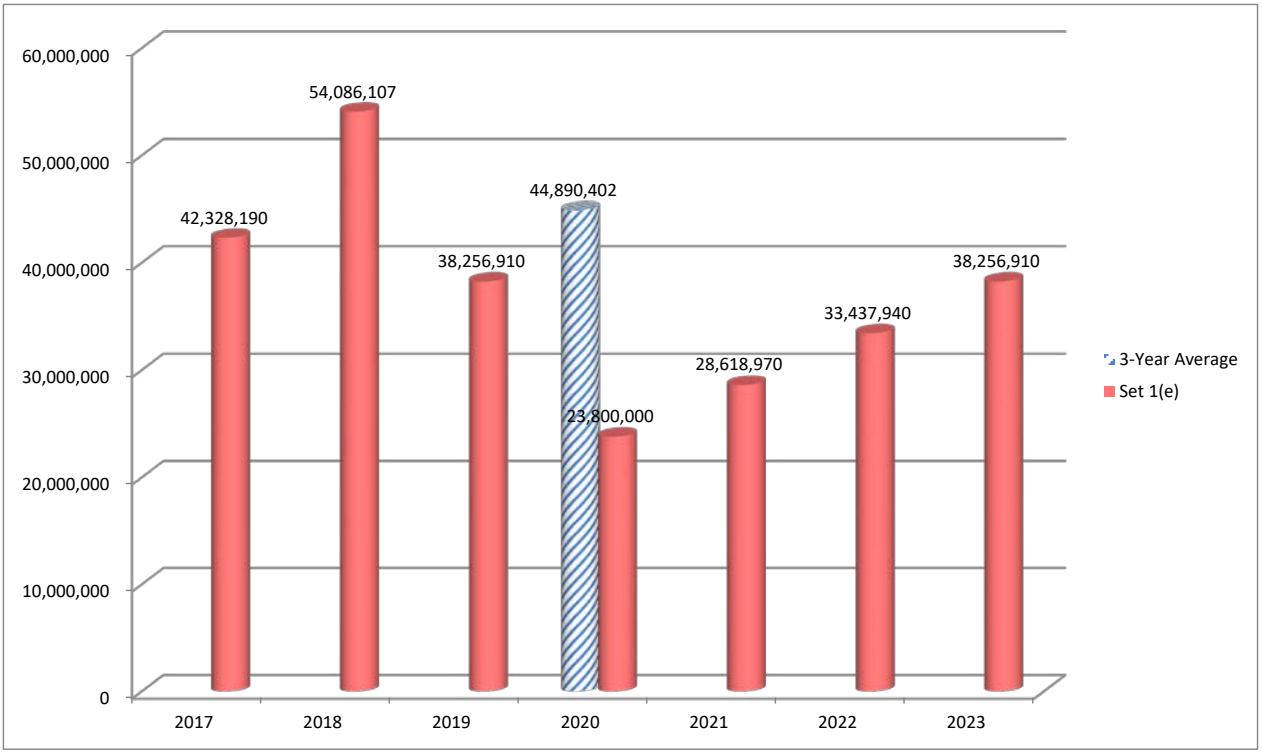
Summary of Results for Case Study Sets 1(d) & 2(d)

1. Impact of the decrement in the amount of $1,899,336 in 2020 (if actual cost is used) is spread over the years 2021 in the amount $2,125,390 and $49,336 in 2022. Total decrement impact is $2,174,726.
2. Recovery period is 3 years (2021, 2022, and 2023), ending Dec. 31, 2023.
3. LIFO Reserve at Dec. 31, 2019/Jan. 1, 2020 in the amount of $9,204,088 is decreased by $811,360 to $8,392,728 as of Dec. 31, 2023.
4. This net adjustment of the decrease of $811,360 over the period of 4 years (2020 - 2023) reflects an increase due to inflation in the amount of $1,363,368, and this is offset by a reduction in (or payback of) the LIFO Reserve due to shifting of the decrement of $2,174,726 in 2021 and 2022 ($2 rounding).
5. Using the substitute cost calculation method, the increase in the LIFO reserve due to inflation for 2020 is greater by $184,385 ($478,212 - $293,827). This method resulted in avoiding the decrement of $11,103,317 computed if the actual cost at Dec. 31, 2020 had been used. The effective rate of inflation for 2020 (0.016606 = 1.345105 – 1.328498) multiplied by the $11,103,307 decrement that does not exist when the substitute cost method is used ($28,797,109 - $17,693,792) results in the $184,385 difference. This difference is eliminated from the adjustment by the greater amount of decrement carried back in the 2021 calculations.
6. In 2024, (the first year after the end of the recovery period) the LIFO layer history through Dec. 31, 2023 as computed under the substitute cost calculation method reflects base dollars of $27,401,148 valued at $29,864,181. These are the same amounts as those in the LIFO layer history if the substitute cost calculation method had not been used (i.e., as if the actual cost method had been used).
7. In 2024 (the first year after the end of the recovery period), the taxpayer could continue to use the LIFO layer history under the substitute cost calculation method. Or the taxpayer could use the LIFO layer history as calculated under the actual cost method (i.e., the original method) because the LIFO layer histories as of Dec. 31, 2023 are identical under both methods.

Facts & Summary of Results for Case Study Sets 1(e) & 2(e)

The Taxpayer's Inventory Level Has Returned to the Pre-Liquidation Level at the End of the Third Year (of the Recovery Period)

Actual (Historical) Cost Dec. 31, 2017 - 2020 ***Projected 3-Year Recovery Period***



	2017	2018	2019	2020	2021	2022	2023
3-Year Average				44,890,402			
Set 1(e)	42,328,190	54,086,107	38,256,910	23,800,000	28,618,970	33,437,940	38,256,910

Sets 1(e) & 2(e) … For 2021, 2022 & 2023 ending inventories increase each year by one-third of liquidation amount. (Liquidation amount is $14,456,910 [$38,256,910 - $23,800,000 ... Increase is $4,818,970 during each year].) Accordingly, by the end of the third year of the recovery period (Dec. 31, 2023), the taxpayer's inventory level has returned to the Dec. 31, 2019 pre-liquidation level ($38,256,910). At the end of each year, inventory amounts are $28,618,970 (2021), $33,437,940 (2022) and $38,256,910 (2023).

Summary of Results for Case Study Sets 1(e) & 2(e)

1. Impact of the decrement in the amount of $1,899,336 in 2020 (if actual cost is used) is shifted to be a decrement in 2021 in the amount of $1,451,210.
2. Recovery period is 3 years (2021, 2022, and 2023), ending Dec. 31, 2023.
3. The LIFO reserve balance at the end of the pre-recovery period (as of Dec. 31, 2019) would be frozen (i.e., remain unchanged) during the recovery period. In other words, any adjustments to the LIFO reserve balances during the recovery period would be "suspended." Only the net adjustment amount would be recorded to either increase or decrease the LIFO reserve to the appropriate amount as of Dec. 31, 2023.
4. LIFO Reserve at Dec. 31, 2019/Jan. 1, 2020 in the amount of $9,204,088 is increased by $156,035 to $9,360,123 as of Dec. 31, 2023.
5. This net adjustment of $156,035 over the period of 4 years (2020 - 2023) reflects an increase due to inflation in the amount of $1,607,245, and this is offset by a reduction in (or payback of) the LIFO Reserve due to shifting of the decrement of $1,451,210 in 2021. The relief the taxpayer has received is that it has avoided having to take the net decrease in the LIFO reserve as Dec. 31, 2020 (i.e., $1,605,558) into income in its 2020 income tax return.
6. This has allowed the taxpayer to receive the benefit of 4 years' worth of inflation ($1,607,245), and it reflects the impact of the decrement as calculated using the substitute inventory level ($1,451,210), which nets to an increase of $156,035.
7. Compared to using the actual cost method for 2020, using the historical average (substitute) method in the calculations over the period has resulted in a $240,206 increase in the LIFO reserve due to the inflation and a further increase in the LIFO reserve of $448,126 because that amount reflects less LIFO reserve payback because of the shifting of the decrement from 2020 to 2021 in slightly different amounts.
8. In 2024, (the first year after the end of the recovery period) the LIFO layer history through Dec. 31, 2023 as computed under the substitute cost calculation method reflects base dollars of $27,401,137 valued at $28,896,797 and a LIFO reserve of $9,360,123.
9. In 2024 (the first year after the end of the recovery period), the taxpayer will continue to use the LIFO layer history under the substitute cost calculation method.

Footnotes

1. *Presidential Proclamation on Declaring a National Emergency Concerning the Novel Coronavirus Disease (COVID-19) Outbreak* … issued March 13, 2020. (https://www.whitehouse.gov/presidential-actions/proclamation-declaring-national-emergency-concerning-novel-coronavirus-disease-covid-19-outbreak/). Proclamation 9994, *Federal Register*, Vol. 85, No. 53, March 18, 2020, pg. 15337.

2. Regulation Section 1.472-8 … *Dollar-Value Method for Pricing LIFO Inventories*

3. In essence, the three fundamental principles inherent in Dollar-Value LIFO Regulations are …

   (1) A LIFO reserve cannot be increased in a year when additional inventory in is purchased. One cannot expect to increase a LIFO reserve simply by purchasing additional inventory. The increase in the LIFO reserve due to the inflation factor for each year is computed by multiplying (*i*) the difference between the cumulative inflation index at the end of the current year and the cumulative inflation index at the beginning of the year (Line E in the computation schedule) by the (*ii*) lower of the beginning inventory or the ending inventory expressed in base dollars.

   (2) At year-end when there has been a liquidation of LIFO inventory (expressed in base dollars), the effect of that liquidation is carried back by removing in reverse chronological order the inventory increments built up in prior years.

   (3) Once an increment (i.e., a LIFO layer) from a prior year has been removed, that layer cannot be restored in a subsequent year by the purchase of additional inventory.

4. For more information on Willard J. De Filipps, CPA, please visit https://defilipps.com/about/. From March 1991 through December 2012, Mr. De Filipps wrote and published *De Filipps' LIFO Lookout*, a periodic update providing a comprehensive look at how current IRS rulings, audit developments and court decisions affect LIFO elections, computations and practices.

   Also, from June 1994 through December 2012, Mr. De Filipps wrote and published *De Filipps' Dealer Tax Watch*, a periodic update discussing current IRS tax rulings, audit developments and court decisions that affect auto dealers and dealerships.

   Complete Indexes of all articles in both publications are available at https://defilipps.com/.

5. "Visualizing Multi-Year LIFO Applications & Reconciliations," *LIFO … Love It or Leave It: Projecting the Impact of Covid-19 on Year-End Inventories & Planning for What Your Clients Can Do About It* (seminar materials), De Filipps, Willard J., November 24, 2020, pgs. 45-46.

6. "Understanding Why LIFO Reserves Go Up Even Though Inventory Levels Go Down," *LIFO … Love It or Leave It: Projecting the Impact of Covid-19 on Year-End Inventories & Planning for What Your Clients Can Do About It* (seminar materials), De Filipps, Willard J., November 24, 2020, pg. 47.

7. Letter dated Nov. 20, 2020 from the National Automobile Dealers Association (NADA) addressed to Messrs. David Kautter and Michael J. Desmond requesting expedited relief for certain franchised automobile and truck dealers.

8. *Public Law 96-223 Crude Oil Windfall Profit Tax Act of 1980* … Text of Law & Committee Reports, Department of Treasury Internal Revenue Service, *Internal Revenue Cumulative Bulletin 1980-3*. [*Report of the Committee on Ways and Means*, U.S. House of Representatives on H.R. 3919, related to the Crude Oil Windfall Profit Tax Act of 1979.]

Footnotes

9. "How LIFO Works," De Filipps, Willard J., published Feb. 1975 in *Cars & Trucks* (Vol. 47, No. 2), by the National Automobile Dealers Association

   Almost 20 years after my first article, the IRS published Revenue Procedure 92-79 which sets forth the Alternative LIFO Method for New Vehicles. Fifteen years after that, the IRS published Revenue Procedure 2008-23 which permits the LIFO pools for new automobiles and new light-duty trucks to be combined into a single LIFO pool. Revenue Procedure 92-79 was superseded by Revenue Procedure 97-36 which simply eliminated the transitional rules which were necessary in 1992 to permit auto dealers using various Dollar-Value LIFO methodologies to make an automatic change in accounting method to apply the Alternative LIFO Method.

   The similarity of the methods and procedures advocated in my article in 1975 and these Revenue Procedures is not coincidental. See "Proposal to the Internal Revenue Service for Simplified Alternative LIFO Method," submitted by W.J. De Filipps - July 14, 1992. Reprinted in the September 1992 issue of *De Filipps' LIFO Lookout*, Vol. 2 No. 3, pgs. 16-19.

   I submitted this proposal to the IRS after (i) vigorously representing (and successfully defending) auto dealerships using the Dollar-Value LIFO method described in my 1975 article at all IRS audit levels, and (ii) participating in a meeting in the National Office on July 7, 1992 which addressed various ways of resolving disagreements over computational methods and issues that had emerged during the two decades from 1974 to 1992.

10. *Coronavirus Aid, Relief and Economic Security (CARES) Act*, P.L. 116-136.

    See also *LIFO … Love It or Leave It: Projecting the Impact of Covid-19 on Year-End Inventories & Planning for What Your Clients Can Do About It* (seminar materials), De Filipps, Willard J., November 24, 2020 … especially "Year-End Planning and Tax Return Reminder Checklist," pg. 61.

11. Revenue Procedure 79-23 … *The LIFO Users Bill of Rights* … 1979-1 C.B. 564, 1979

12. $40,396,555 ÷ 1.402799 = $28,797,109 (the base dollars in inventory at Dec. 31, 2019) … 1.402799 = [1.328498 x 1.01100 x 1.01650 x 1.01400 x 1.01330]

13. Section 473(d) terms and definitions include…

    "The term 'qualified liquidation' means (A) decrease in the closing inventory of the liquidation year from the opening inventory of such liquidation year, but only if (B) … [The remainder of this sub-paragraph requires determination by the Secretary, after consultation with appropriate Federal officers … and the essence of my proposal to amend Section 473 by adding a new section (h) reflects the expectation that the impact of the Coronavirus is so evident that no further justification or involvement in this regard is necessary].

    "The term 'liquidation year' means the taxable year in which occurs the qualified liquidation to which this Section applies."

    "The term 'replacement year' means any taxable year in the replacement period; except that such term shall not include any taxable year after the taxable year in which the replacement of the LIFO goods is completed."

    "The term 'replacement period' means the shorter of (A) period of the three taxable years following the liquidation year or (B) period specified by the Secretary …"

    In connection with using the historical 3-year average substitute, the year immediately preceding the liquidation year is referred to as the "pre-liquidation year."

Attachments & Schedules

Attachments

Proclamation Declaring National Emergency Due to Coronavirus Disease Outbreak

Visualizing Multi-Year LIFO Applications & Reconciliations

Understanding Why LIFO Reserves Go Up Even Though Inventory Levels Go Down

"How LIFO Works," De Filipps, Willard J., published Feb. 1975 in *Cars & Trucks* (Vol. 47, No. 2), by the National Automobile Dealers Association (page 1 only)

Schedules Comparing 2020 LIFO Calculations Using Both Methods

LIFO Calculations for the Years 2018 - 2020 … Using Dec. 31, 2020 Actual Inventory Cost

LIFO Calculations for the Years 2018 - 2020 … Using Dec. 31, 2020 Substitute (3-Yr. Avg.) Inventory Cost

LIFO Calculations for the Years 2018 - 2020 … Comparing Results Under Both Methods

Summary of LIFO Reserve Balances & Analyses of Net Changes in LIFO Reserves - Both Methods

Composition & Contribution Made by Each Layer to the LIFO Reserve at Dec. 31, 2020 - Both Methods

Composition & Contribution Made by Each Layer to the LIFO Reserve at Dec. 31, 2018 & 2019

Case Study Sets 1(a) & 2(a)

Summary of Results Based on Assumed Changes in Year-End Inventory Levels

Analysis of Differences in LIFO Reserve Changes During the Recovery Period

Set 1(a) … Actual

3-Year Projection of LIFO Inventories – Based on Actual Inventory Amount for 2020

Summary of LIFO Reserve Balances & Analyses of Net Change in LIFO Reserve

Composition & Contribution Made by Each Layer to the LIFO Reserve (2020 & 2023)

Set 2(a) … Substitute

3-Year Projection of LIFO Inventories – Based on Substitute Inventory Amount for 2020

Summary of LIFO Reserve Balances & Analyses of Net Change in LIFO Reserve

Composition & Contribution Made by Each Layer to the LIFO Reserve (2020 & 2023)

Schedules in the same format described above for Case Study Sets 1(a) and 2(a) are included for each of the Case Study Sets 1(b) & 2(b) … 1(c) & 2(c) … 1(d) & 2(d) … 1(e) & 2(e). Individual detail listings for these Case Study Sets have not been repeated.

Request for Limited Tax Relief for Businesses Using Dollar-Value LIFO Methods to Value Inventories And Suggested Framework for Implementing Relief

ATTACHMENTS & SCHEDULES

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Attachments & Schedules

Attachments

Schedules Comparing 2020 LIFO Calculations Using Both Methods

Case Study Sets 1(a) & 2(a)

Set 1(a) … Actual

Set 2(a) … Substitute

Case Study Sets 1(b) & 2(b)

Set 1(b) … Actual

Set 2(b) … Substitute

Attachments & Schedules

PROCLAMATIONS

Proclamation on Declaring a National Emergency Concerning the Novel Coronavirus Disease (COVID-19) Outbreak

Issued on: **March 13, 2020**

★ ★ ★

In December 2019, a novel (new) coronavirus known as SARS-CoV-2 ("the virus") was first detected in Wuhan, Hubei Province, People's Republic of China, causing outbreaks of the coronavirus disease COVID-19 that has now spread globally. The Secretary of Health and Human Services (HHS) declared a public health emergency on January 31, 2020, under section 319 of the Public Health Service Act (42 U.S.C. 247d), in response to COVID-19. I have taken sweeping action to control the spread of the virus in the United States, including by suspending entry of foreign nationals seeking entry who had been physically present within the prior 14 days in certain jurisdictions where COVID-19 outbreaks have occurred, including the People's Republic of China, the Islamic Republic of Iran, and the Schengen Area of Europe. The Federal Government, along with State and local governments, has taken preventive and proactive measures to slow the spread of the virus and treat those affected, including by instituting Federal quarantines for individuals evacuated from foreign nations, issuing a declaration pursuant to section 319F-3 of the Public Health Service Act (42 U.S.C. 247d-6d), and releasing policies to accelerate the acquisition of personal protective equipment and streamline bringing new diagnostic capabilities to laboratories. On March 11, 2020, the World Health Organization announced that the COVID-19 outbreak can be characterized as a pandemic, as the rates of infection continue to rise in many locations around the world and across the United States.

The spread of COVID-19 within our Nation's communities threatens to strain our Nation's healthcare systems. As of March 12, 2020, 1,645 people from 47 States have been infected with the virus that causes COVID-19. It is incumbent on hospitals and medical facilities throughout the country to assess their preparedness posture and be prepared to surge capacity and capability. Additional measures, however, are needed to successfully contain and combat the virus in the United States.

NOW, THEREFORE, I, DONALD J. TRUMP, President of the United States, by the authority vested in me by the Constitution and the laws of the United States of America, including sections 201 and 301 of the National Emergencies Act (50 U.S.C. 1601 *et seq*.) and consistent with section 1135 of the Social Security Act (SSA), as amended (42 U.S.C. 1320b-5), do hereby find and proclaim that the COVID-19 outbreak in the United States constitutes a national emergency, beginning March 1, 2020. Pursuant to this declaration, I direct as follows:

Section 1. Emergency Authority. The Secretary of HHS may exercise the authority under section 1135 of the SSA to temporarily waive or modify certain requirements of the Medicare, Medicaid, and State Children's Health Insurance programs and of the Health Insurance Portability and Accountability Act Privacy Rule throughout the duration of the public health emergency declared in response to the COVID-19 outbreak.

Sec. 2. Certification and Notice. In exercising this authority, the Secretary of HHS shall provide certification and advance written notice to the Congress as required by section 1135(d) of the SSA (42 U.S.C. 1320b-5(d)).

Sec. 3. General Provisions. (a) Nothing in this proclamation shall be construed to impair or otherwise affect:

(i) the authority granted by law to an executive department or agency, or the head thereof; or

(ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(b) This proclamation shall be implemented consistent with applicable law and subject to the availability of appropriations.

(c) This proclamation is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

IN WITNESS WHEREOF, I have hereunto set my hand this thirteenth day of March, in the year of our Lord two thousand twenty, and of the Independence of the United States of America the two hundred and forty-fourth.

DONALD J. TRUMP

VISUALIZING MULTI-YEAR LIFO APPLICATIONS & RECONCILIATIONS

The concept of LIFO is geared to measuring future price increases in comparison with a "base inventory" amount. "Base inventory" is established and defined as the inventory at cost, i.e., actual cost after restoring any market or other writedowns, or previously omitted cost components or elements. Once this "base inventory" is established on the first day of the first year when LIFO is elected, then over a period of **years**, the cumulative LIFO deferral advantages (in the form of the LIFO Reserve) can be measured in terms of (1) the overall increase since the initial LIFO election, and (2) as interim changes in the LIFO Reserve from year to year.

LIFO involves a measurement process which in turn involves:

... Two points in time (two year-ends)

... One of which is fixed (the base date).

The base date, (i.e., first day of the first year in which LIFO is elected) provides that benchmark or fixed reference point for all subsequent LIFO computations. As summarized previously, although the base date is always fixed, subsequent measurements with respect to it may involve computations that either:

1. Reprice as of that specific date (i.e., double extension or index methods), or

2. Reprice as of that specific date by the use of a "splicing" or year-by-year index construction (i.e., link-chain or "link-chain, index" methods).

A link-chain method uses the beginning of each year as the measuring reference for determining change. In contrast, the double-extension method uses a fixed base date, which is defined as the first day of the first year for which LIFO is elected. An index method prices a representative portion of the overall inventory, rather than "every item" as required under the double-extension portion of the regulations. Therefore, a "link-chain, index" method refers to a method that (1) uses a moving base date and (2) reprices a representative portion (rather than "every" item) of the inventory in determining the annual index. For the Tax Court's discussion of the link-chain method, see **Richardson Investments, Inc.** 76 TC 736 (1981), a case decided some 20 years after the method was obscurely referred to by name only in the LIFO regulations.

In reconciling LIFO reserves over several years, it is necessary to understand two further points:

1. LIFO reserve benefits basically relate to inventory investment levels that have remained **IN TACT** over a period of time, and

2. We must look at the difference or differential between cumulative inflation rates at the two given points in time (beginning of the year and end of the year) for which we are making the reconciliation.

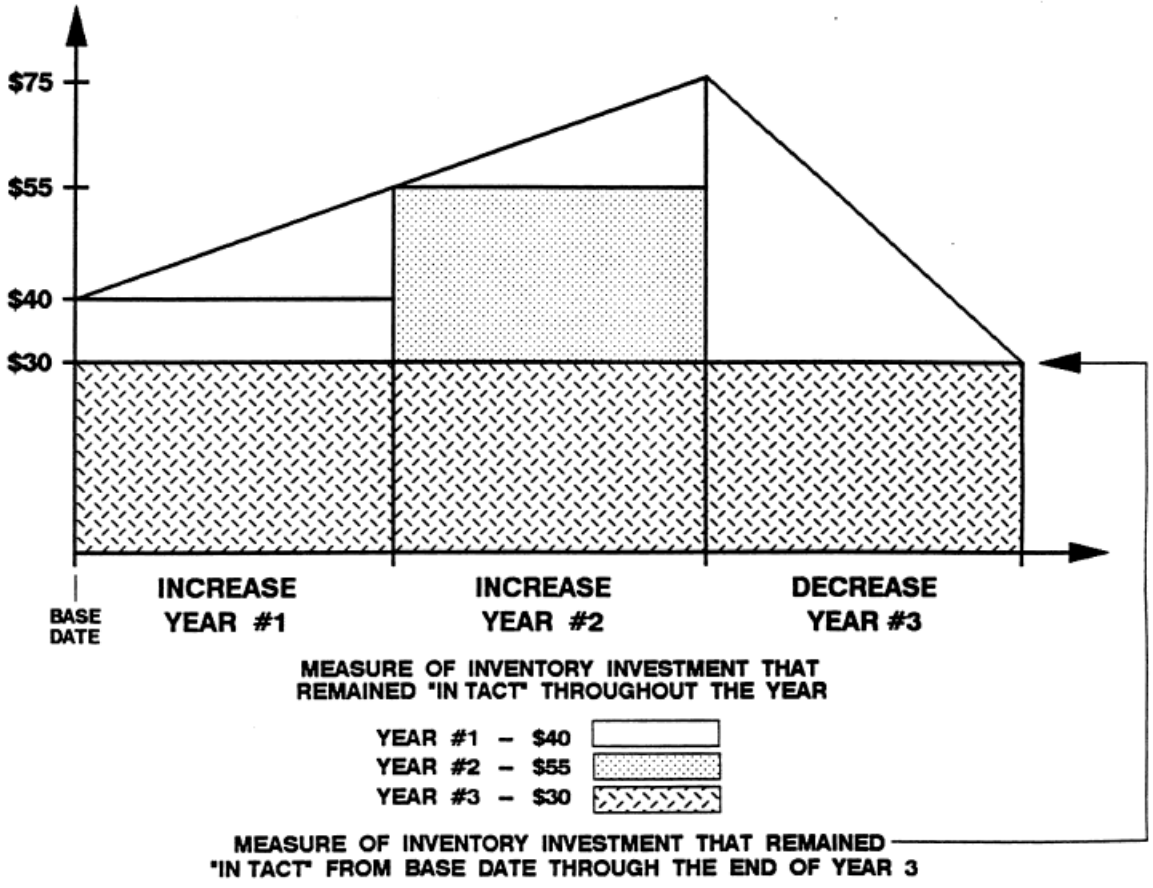
(continued)

Source: *LIFO Inventories: Advanced Applications*, a full day in-house seminar presented by Willard J. De Filipps, CPA

As inventory levels change in succeeding years, even if those levels fall below earlier levels during LIFO years, to the extent that the investment of dollars in inventory (i.e., dollars converted back to reflect a "constant" purchasing power, as measured by LIFO index techniques) remain in tact throughout the year, the dollars that remained in tact receive the "benefit" of current year price increases applied on a cumulative basis. In many cases, this consequence will prolong the LIFO deferral considerably even as inventory levels decline. This may be "conceptualized" as shown below.

As a result, the **cumulative** deferral advantages of LIFO in later years may be increased even more if an election is made in an early year even though (or despite the fact that) inventory levels in that year are lower and the potential LIFO deferral for that year alone is relatively small. Why? Because under the link-chain method, the inflation index percentages carry forward in all later years' computations. And these are compounded over all the years the LIFO election is in effect.

Although we have experienced less absolute inflation in more recent years (and this inflation at a lower rate is certainly a welcome relief compared with double digit inflation of the 70's), inflation **per se** still exists. It continues unabated every year. Taxpayers using the LIFO method are simply in a position to deduct that inflation as it is incurred, rather than carrying it as an inventory cost from one year to the next in their ending inventories.



Practice Guide	WHY LIFO RESERVES CHANGE THE WAY THEY DO
Background	• Taxpayers using LIFO are often surprised when they find out that even though their year-end inventory levels are (*projected to be*) lower than they were at the beginning-of-the-year, their LIFO reserves (*are expected to*) increase. ◆ Often these (*projected*) increases in LIFO reserves are very large.
Change Factors	• The *net amount of change* in the LIFO reserve for any year is the result of two complementing and/or offsetting factors. • This ***variation analysis*** simply involves … ◆ ***Price changes***, i.e., inflation or deflation … prices either increased or decreased, and ◆ ***Quantity changes***, i.e., changes in the dollar amount of the inventory investment levels.
***Upward influences* … causing increases (i.e., factors causing the LIFO reserve to go up) …**	
Upward … Increases	• ***Price increases*** …inflation. • ***Quantity increases***, if a dual index LIFO methodology/approach is used for valuing increments. • ***Certain decreases in inventory investment levels*** - To the extent that a current-year quantity decrease (referred to as a "decrement") is carried back against an increment built up in a prior year or years, any pay-back of the previously built-up LIFO increment and its related contribution to the LIFO reserve will ***increase*** the current year's LIFO reserve if … ◆ There was deflation in the prior year(s)'s layers that are now being invaded, and ◆ The layers being invaded are/were contributing "negatively" or negative amounts to the LIFO reserve at the end of the preceding year. ◆ ***Stated another way …*** The layers of inventory being invaded by the carryback of a decrement (expressed in base dollars) are contributing negative amounts toward the overall LIFO reserve balance; Accordingly, to the extent that any carryback of the current-year's decrement eliminates these negative effects, that leaves only inventory layers contributing positive amounts toward the overall LIFO reserve balance … or fewer inventory layers still contributing negatively toward the overall LIFO reserve balance.
***Downward influences* … causing decreases (i.e., factors causing the LIFO reserve to go down) …**	
Downward … Decreases	• ***Price decreases*** …deflation. • ***Decreases in inventory investment levels*** - i.e., pay-backs of previously built-up LIFO reserves to the extent resulting from the carryback of a current-year inventory quantity decrease (referred to as "decrements") against increases ("increments") built up in prior years. • ***Decreases in inventory investment levels … But not always … Sometimes no payback.*** ◆ An inventory decrease/decrement may not necessarily cause, or result in, any pay-back of some or any of the LIFO reserve at the beginning of the year. Whether or not there is a "pay-back" depends the order in which the prior year layers were built up over time and how they were valued for LIFO purposes.
No Effect	• If the decrement in the current year is less than the amount of the increment in the immediately preceding year, there will be no dollar change in the LIFO reserve due to the carryback of that decrement against that prior year's increment. • This result will occur under any LIFO method that values a current-year increment by using the cumulative inflation index (factor) at the end of the year. ◆ Alternative LIFO Methods for New and/or Used Vehicles
Articles Analyzing Changes in LIFO Reserves	• "*Why Do Some LIFO Reserves Go Up Even Though Inventory Levels Go Down?*" in the March 1992 *LIFO Lookout* • "*Another Rebasing Example - With Proofs: Why LIFO Reserves Go Up Even Though Inventory Levels Go Down and Despite Rebasing Indexes to 1.000 in Between*" in the June 1993 *LIFO Lookout.* • "*Strange … But Explainable … Results from the Wacky World of Negative LIFO Reserves,*" in the December 1998 *LIFO Lookout.* This article, with supporting schedules, analyzes pay-back mechanics where negative LIFO reserves are involved. • "*Dealers Who've Remained on LIFO Through a Few Years of Deflation Are Finally Rewarded by Inflation & Big LIFO Reserve Increases*" in the June 2004 *LIFO Lookout.* ◆ This article, with supporting schedules, analyzes LIFO reserve changes where some of the more recent years' LIFO layers reflect general price deflation, but not to the point where overall negative LIFO reserve balances have been created.

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February 1975 VOL. 47 NO. 2

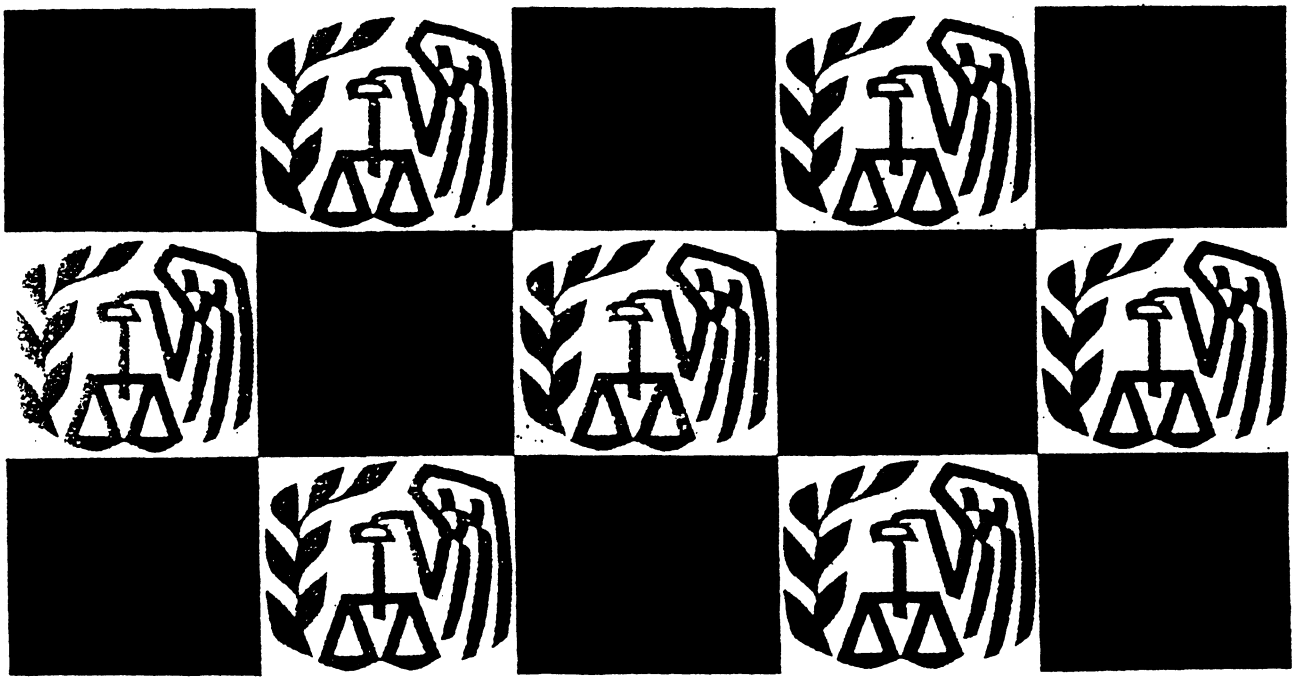
How LIFO Works

By Willard J. De Filipps
Partner, Wolf and Co.

The "last in, first out" inventory costing practice is one of the hottest issues on the business scene today. This two-part series should help the dealer decide whether LIFO will work for his business and, if so, how to best utilize it.

The following article is a practical survey of how the last in, first out method of inventory costing can be applied to the franchised new car or truck dealership. It was written by Willard J. De Filipps who is a partner in the Chicago office of Wolf and Co., Certified Public Accountants, a distinguished firm with considerable experience in the dealership field. Mr. De Filipps' article is a product of his sound theoretical knowledge of LIFO and his years of practical experience in the audit of dealerships. Next month, two partners of a firm of similar distinction and experience in the automotive field, A.M. Pullen & Co., will discuss the pros and cons of making the LIFO election.

MANY GENERAL discussions on the subject of LIFO can be found in intermediate textbooks and current financial literature. However, little is available on how an automobile dealer can convert to LIFO. This may be due to the relatively recent emergence of the severe conditions now focusing attention on LIFO in situations where previously it was ignored. Perhaps another reason is that a LIFO conversion requires choices among numerous alternatives and sub-elections, and the appropriate



XYZ, Inc.

Calculation of LIFO Inventory & LIFO Reserve Changes - Based on Actual Inventory Amount for Dec. 31, 2020
For the Calendar Years Ended Below

	2018	2019	2020	
A. Beginning-of-year inventory at base date cost	32,944,328	41,492,667	28,797,109	
B. End-of-year inventory at end-of-year (current) prices	54,086,107	38,256,910	23,800,000	†Actual Cost
C. End-of-year inventory at beginning of year (base prices)	Not fully Repriced	Not fully Repriced	Not fully Repriced	
D. Current Year Price Index: End of year inventory priced at end-of-year prices (divided by) Ratio of: ---------- End of year inventory priced at beginning-of-year prices	1.014530	1.019170	1.012500	
E. Cumulative link-chain index: Current-year price index (Line D) multiplied by (x) Prior year's cumulative index (Line E of prior year)	1.303510	1.328498	1.345105	
F. End-of-year inventory at base date cost (Line B divided by Line E)	41,492,667	28,797,109	17,693,792	
G. Current year inventory increase (decrease) - Expressed in base dollars				
1. End-of-year inventory at base date cost (Line F)	41,492,667	28,797,109	17,693,792	
2. Beginning-of-year inventory at base date cost (Line A)	32,944,328	41,492,667	28,797,109	
3. Current-year increment (G(1) exceeds G(2)) or decrease (if G(2) exceeds G(1))	8,548,339	(12,695,558)	(11,103,317)	
	x 1.303510	x -	x -	
4. LIFO valuation of current-year increment (If G(1) exceeds G(2), multiply Line G(3) by Line E)	11,142,846	N/A	N/A	

H. Analysis of Year-End Inventory LIFO "Layers"

Calendar Year 2018

	Base Dollars		*Valuation Factor*	
Calendar Year 1985	2,279,795	x	0.517470	1,179,726
Calendar Year 1992	917,975	x	0.649710	596,418
Calendar Year 1994	527,962	x	0.708260	373,934
Calendar Year 1995	466,372	x	0.737590	343,991
Calendar Year 1996	48,996	x	0.752690	36,879
Calendar Year 1997	525,898	x	0.775950	408,071
Calendar Year 1999	2,257,479	x	0.830310	1,874,407
Calendar Year 2000	151,649	x	1.016410	154,138
Calendar Year 2001	1,033,581	x	0.850860	879,433
Calendar Year 2002	1,354,753	x	0.880270	1,192,548
Rebased as of 12/31/06	0	x	1.000000	-
* Subtotal - All Prior Years	9,564,460			7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	3,712,422	x	1.197870	4,446,999
Calendar Year 2014	56,248	x	1.217070	68,458
Calendar Year 2016	1,113,883	x	1.274250	1,419,365
Calendar Year 2018	8,548,339	x	1.303510	11,142,845
	41,492,667			45,249,699

Calendar Year 2019

	Base Dollars		*Valuation Factor*		
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544	
Calendar Year 2010	3,962,960	x	1.119410	4,436,177	
Calendar Year 2011	3,946,822	x	1.133130	4,472,262	
Calendar Year 2012	10,587,533	x	1.154570	12,224,048	
Calendar Year 2013	735,297	x	1.197870	880,790	
	28,797,072			29,052,822	

Calendar Year 2020

	Base Dollars		*Valuation Factor*			
* Subtotal - All Prior Years	9,564,460	x	-			7,039,544
Calendar Year 2010	3,962,960	x	1.119410			4,436,177
Calendar Year 2011	3,946,822	x	1.133130			4,472,262
Calendar Year 2012	219,550	x	1.154570			253,486
	17,693,792					16,201,470

Ending Inventory at LIFO Valuation, per Above	45,249,699	29,052,822	16,201,470
Less: Ending Inventory at End-of-Year Prices (Line B)	54,086,107	38,256,910	23,800,000
LIFO Reserve at End of the Year	8,836,408	9,204,088	7,598,530
LIFO Reserve at Beginning of Year	8,221,336	8,836,408	9,204,088
Net Increase (Decrease) in LIFO Reserve	615,072	367,680	(1,605,558)

† The calculations for 2020 reflect the actual ending inventory as of Dec. 31, 2020

Note: See accompanying schedules for proofs and reconciliations of (1) composition of the layers in the LIFO Reserve balances as of year-end and (2) components of the changes in the LIFO Reserve for the years indicated above.

XYZ, Inc.

Calculation of LIFO Inventory & LIFO Reserve Changes - Based on Substitute (3-Yr. Average) Inventory - Dec. 31, 2020
For the Calendar Years Ended Below

	2018	2019	2020	
A. Beginning-of-year inventory at base date cost	32,944,328	41,492,667	28,797,109	
B. End-of-year inventory at end-of-year (current) prices	54,086,107	38,256,910	44,890,402	†Substitute Cost
C. End-of-year inventory at beginning of year (base prices)	Not fully Repriced	Not fully Repriced	Not fully Repriced	
D. Current Year Price Index:				
End of year inventory priced at end-of-year prices (divided by)				
Ratio of: ----------	1.014530	1.019170	1.012500	
End of year inventory priced at beginning-of-year prices				
E. Cumulative link-chain index:				
Current-year price index (Line D) multiplied by (x)				
Prior year's cumulative index (Line E of prior year)	1.303510	1.328498	1.345105	
F. End-of-year inventory at base date cost (Line B divided by Line E)	41,492,667	28,797,109	33,373,170	
G. Current year inventory increase (decrease) - Expressed in base dollars				
1. End-of-year inventory at base date cost (Line F)	41,492,667	28,797,109	33,373,170	
2. Beginning-of-year inventory at base date cost (Line A)	32,944,328	41,492,667	28,797,109	
3. Current-year increment (G(1) exceeds G(2)) or decrease (if G(2) exceeds G(1))	8,548,339	(12,695,558)	4,576,061	
	x 1.303510	x -	x 1.345105	
4. LIFO valuation of current-year increment (If G(1) exceeds G(2), multiply Line G(3) by Line E)	11,142,846	N/A	6,155,281	

H. Analysis of Year-End Inventory LIFO "Layers"

Calendar Year 2018

	Base Dollars		*Valuation Factor*	
Calendar Year 1985	2,279,795	x	0.517470	1,179,726
Calendar Year 1992	917,975	x	0.649710	596,418
Calendar Year 1994	527,962	x	0.708260	373,934
Calendar Year 1995	466,372	x	0.737590	343,991
Calendar Year 1996	48,996	x	0.752690	36,879
Calendar Year 1997	525,898	x	0.775950	408,071
Calendar Year 1999	2,257,479	x	0.830310	1,874,407
Calendar Year 2000	151,649	x	1.016410	154,138
Calendar Year 2001	1,033,581	x	0.850860	879,433
Calendar Year 2002	1,354,753	x	0.880270	1,192,548
Rebased as of 12/31/06	0	x	1.000000	-
* Subtotal - All Prior Years	9,564,460			7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	3,712,422	x	1.197870	4,446,999
Calendar Year 2014	56,248	x	1.217070	68,458
Calendar Year 2016	1,113,883	x	1.274250	1,419,365
Calendar Year 2018	8,548,339	x	1.303510	11,142,845
	41,492,667			45,249,699

Calendar Year 2019

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	735,297	x	1.197870	880,790
	28,797,072			29,052,822

Calendar Year 2020 - Substitute Cost

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	735,297	x	1.197870	880,790
Calendar Year 2020	4,576,061	x	1.345105	6,155,280
	33,373,133			35,208,102

Ending Inventory at LIFO Valuation, per Above	45,249,699	29,052,822	35,208,102
Less: Ending Inventory at End-of-Year Prices (Line B)	54,086,107	38,256,910	44,890,402
LIFO Reserve at End of the Year	8,836,408	9,204,088	9,682,300
LIFO Reserve at Beginning of Year	8,221,336	8,836,408	9,204,088
Net Increase (Decrease) in LIFO Reserve	615,072	367,680	478,212

† The calculations for 2020 reflect the 3-year historical average of ending inventory costs (Dec. 31, 2017 - 2019) - substitute cost used instead of actual cost - as of Dec. 31, 2020.

Note: See accompanying schedules for proofs and reconciliations of (1) composition of the layers in the LIFO Reserve balances as of year-end and (2) components of the changes in the LIFO Reserve for the years indicated above.

XYZ, Inc.

Calculation of LIFO Inventory & LIFO Reserve Changes - Comparing Actual Inventory & Substitute Inventory Results For the Calendar Years Ended Below

	2018	2019	2020 Actual Cost	2020 Substitute Cost
A. Beginning-of-year inventory at base date cost	32,944,328	41,492,667	28,797,109	28,797,109
B. End-of-year inventory at end-of-year (current) prices	54,086,107	38,256,910	23,800,000	44,890,402
C. End-of-year inventory at beginning of year (base prices)	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced
D. Current Year Price Index: End of year inventory priced at end-of-year prices (divided by) Ratio of: End of year inventory priced at beginning-of-year prices	1.014530	1.019170	1.012500	1.012500
E. Cumulative link-chain index: Current-year price index (Line D) multiplied by (x) Prior year's cumulative index (Line E of prior year)	1.303510	1.328498	1.345105	1.345105
F. End-of-year inventory at base date cost (Line B divided by Line E)	41,492,667	28,797,109	17,693,792	33,373,170
G. Current year inventory increase (decrease) - Expressed in base dollars				
1. End-of-year inventory at base date cost (Line F)	41,492,667	28,797,109	17,693,792	33,373,170
2. Beginning-of-year inventory at base date cost (Line A)	32,944,328	41,492,667	28,797,109	28,797,109
3. Current-year increment (G(1) exceeds G(2)) or decrease (if G(2) exceeds G(1))	8,548,339	(12,695,558)	(11,103,317)	4,576,061
	x 1.303510	x -	x -	x 1.345105
4. LIFO valuation of current-year increment (If G(1) exceeds G(2), multiply Line G(3) by Line E)	11,142,846	N/A	N/A	6,155,281

H. Analysis of Year-End Inventory LIFO "Layers"

Calendar Year 2018

	Base Dollars		*Valuation Factor*	
Calendar Year 1985	2,279,795	x	0.517470	1,179,726
Calendar Year 1992	917,975	x	0.649710	596,418
Calendar Year 1994	527,962	x	0.708260	373,934
Calendar Year 1995	466,372	x	0.737590	343,991
Calendar Year 1996	48,996	x	0.752690	36,879
Calendar Year 1997	525,898	x	0.775950	408,071
Calendar Year 1999	2,257,479	x	0.830310	1,874,407
Calendar Year 2000	151,649	x	1.016410	154,138
Calendar Year 2001	1,033,581	x	0.850860	879,433
Calendar Year 2002	1,354,753	x	0.880270	1,192,548
Rebased as of 12/31/06	0	x	1.000000	-
* Subtotal - All Prior Years	9,564,460			7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	3,712,422	x	1.197870	4,446,999
Calendar Year 2014	56,248	x	1.217070	68,458
Calendar Year 2016	1,113,883	x	1.274250	1,419,365
Calendar Year 2018	8,548,339	x	1.303510	11,142,845
	41,492,667			45,249,699

Calendar Year 2019

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	735,297	x	1.197870	880,790
	28,797,072			29,052,822

Calendar Year 2020 - Actual Cost

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	219,550	x	1.154570	253,486
	17,693,792			16,201,470

Calendar Year 2020 - Substitute Cost

	Base Dollars		*Valuation Factor*		**Difference**
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544	0
Calendar Year 2010	3,962,960	x	1.119410	4,436,177	0
Calendar Year 2011	3,946,822	x	1.133130	4,472,262	0
Calendar Year 2012	10,587,533	x	1.154570	12,224,048	11,970,562
Calendar Year 2013	735,297	x	1.197870	880,790	880,790
Calendar Year 2020	4,576,061	x	1.345105	6,155,281	6,155,281
	33,373,133			35,208,102	19,006,633
	37				
	33,373,170				

Ending Inventory at LIFO Valuation, per Above	45,249,699	29,052,822	16,201,470	35,208,102	19,006,632
Less: Ending Inventory at End-of-Year Prices (Line B)	54,086,107	38,256,910	23,800,000	44,890,402	21,090,402
					(2,083,770)
LIFO Reserve at End of the Year	8,836,408	9,204,088	7,598,530	9,682,300	
LIFO Reserve at Beginning of Year	8,221,336	8,836,408	9,204,088	9,204,088	
					Difference
Net Increase (Decrease) in LIFO Reserve	615,072	367,680	(1,605,558)	478,212	(2,083,770)

Note: See accompanying schedules for proofs and reconciliations of (1) composition of the layers in the LIFO Reserve balances as of year-end and (2) components of the changes in the LIFO Reserve for the years indicated above.

XYZ, INC.

SUMMARY OF LIFO RESERVE BALANCES & ANALYSES OF NET INCREASE (DECREASE) IN LIFO RESERVE

FOR THE YEARS INDICATED BELOW

								Inventory at Actual Cost		Inventory at Substitute Cost	
	LIFO Reserve Balance 12/31/2016	*Increase / Decrease 2017*	*LIFO Reserve Balance 12/31/2017*	*Increase / Decrease 2018*	*LIFO Reserve Balance 12/31/2018*	*Increase / Decrease 2019*	*LIFO Reserve Balance 12/31/2019*	*Increase / Decrease 2020*	*LIFO Reserve Balance 12/31/2020*	*Increase / Decrease 2020*	*LIFO Reserve Balance 12/31/2020*
LIFO Reserves											
Summary Information	7,872,456	348,880	8,221,336	615,072	8,836,408	367,680	9,204,088	(1,605,558)	7,598,530	478,212	9,682,300
Year-End Inventory, Net of LIFO Reserve											
Ending Inventory at Cost	44,980,792		42,328,190		54,086,107		38,256,910		23,800,000		44,890,402
Less: LIFO Reserve	(7,872,456)		(8,221,336)		(8,836,408)		(9,204,088)		(7,598,530)		(9,682,300)
Inventory Net of LIFO Reserve (i.e., LIFO valuation of ending inventory)	37,108,336		34,106,854		45,249,699		29,052,822		16,201,470		35,208,102

3-Year Historical Average of Ending Inventories at Cost (Dec. 31, 2017 - 2019)

December 31, 2017	42,328,190
December 31, 2018	54,086,107
December 31, 2019	38,256,910
3-Year Total	134,671,207
	÷ 3
3-Year Average	44,890,402

Analysis of Net Increase (Decrease) in LIFO Reserve	**2016**	**2017**	**2018**	**2019**	**Actual Cost 2020**	**Substitute Cost 2020**	**Difference**
Increase in LIFO reserve due to inflation factor *	409,022	348,880	615,072	719,639	293,841	478,234	184,393
Less: Payback (reduction in LIFO reserve) due to decrement carried back against prior years' layers	N/A	0 †	N/A	(351,959) **	(1,899,399) ††	(22) 0	(22) 1,899,399
Net increase (decrease) in LIFO reserve at year-end	409,022	348,880	615,072	367,680	(1,605,558)	478,212	2,083,770
Current-year price (inflation) index - Per Line D of computations	1.01019%	1.00831%	1.01453%	1.01917%	1.25000%	1.25000%	

Rounding difference is $22
No increment computed if substitute cost is used

† Decrement of $2,355,489 carried back against 2016 increment of $3,469,372 resulted in no payback of L/R from 2016 layer

** ***2019 L/R Payback Due to Decrement in LIFO Reserve***

	Base Dollars		*Amount Contributed to LIFO Reserve at Dec. 31, 2018*		*LIFO Reserve Recapture Due to Invasion of Layer*	
December 31, 2013 Layer	2,977,125	x	0.10564	(1.30351 - 1.19787) =	314,505	
December 31, 2014 Layer	56,248	x	0.08644	(1.30351 - 1.21707) =	4,862	
December 31, 2016 Layer	1,113,883	x	0.02926	(1.30351 - 1.27425) =	32,592	
December 31, 2018 Layer	8,548,339	x	0	(1.30351 - 1.30351) =	0	
	12,695,595			Per Above	351,959	**
	(37)					
Per schedule	12,695,558					

†† ***2020 L/R Payback Due to Decrement in LIFO Reserve - Actual Cost***

			Amount Contributed to LIFO Reserve at Dec. 31, 2019			
December 31, 2012 Layer	10,367,983	x	0.173928	(1.328498 - 1.154570) =	1,803,284	
December 31, 2013 Layer	735,297	x	0.130628	(1.328498 - 1.197870) =	96,052	
	11,103,280			Per Above	1,899,336	
	37				63	
Per schedule	11,103,317				1,899,399	††

2020 L/R Payback Due to Decrement in LIFO Reserve - Substitute Cost ... **There is no payback because the computations reflect an increment (and not a decrement)**

* The increase in the LIFO reserve due to the inflation factor for each year is computed by multiplying (1) the difference between the cumulative inflation index at the end of the current year and the cumulative inflation index at the beginning of the year (Line E in the computation schedule) by the (2) lower of the beginning inventory or the ending inventory expressed in base dollars.

For 2020 actual cost, increase in LIFO reserve due to inflation is ...	1.345105	-	1.328498	=	0.016607	x	17,693,792	=	293,841
For 2020 substitute cost, increase in LIFO reserve due to inflation is ...	1.345105	-	1.328498	=	0.016607	x	28,797,109	=	478,234
							Difference		184,393

Note: All rounding dollar amounts are due to differences in the display of decimal calculations.

XYZ, Inc.

Composition of LIFO Inventory Pool & Contribution Made by Each Layer to the LIFO Reserve

For the Years Indicated Below

Calendar Year 2020 Actual Inventory				***Composition & Proof of LIFO Reserve as of Dec. 31, 2020***		
	Base Dollars	***Valuation Factor***	***LIFO Valuation***	***Base Dollars***	***Proof Factor***	***Composition of LIFO Reserve***
Analysis of Year-End LIFO Inventory Layers						
Calendar Year 1985	2,279,795	0.517470	1,179,726	2,279,795	0.827635	1,886,838
Calendar Year 1992	917,975	0.649710	596,418	917,975	0.695395	638,355
Calendar Year 1994	527,962	0.708260	373,934	527,962	0.636845	336,230
Calendar Year 1995	466,372	0.737590	343,991	466,372	0.607515	283,328
Calendar Year 1996	48,996	0.752690	36,879	48,996	0.592415	29,026
Calendar Year 1997	525,898	0.775950	408,071	525,898	0.569155	299,317
Calendar Year 1999	2,257,479	0.830310	1,874,407	2,257,479	0.514795	1,162,139
Calendar Year 2000	151,649	1.016410	154,138	151,649	0.328695	49,846
Calendar Year 2001	1,033,581	0.850860	879,433	1,033,581	0.494245	510,842
Calendar Year 2002	1,354,753	0.880270	1,192,548	1,354,753	0.464835	629,737
Rebased as of 12/31/06	-	-	-	-	-	-
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.609094	5,825,659
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.225695	894,420
Calendar Year 2011	3,946,822	1.133130	4,472,262	3,946,822	0.211975	836,628
Calendar Year 2012	219,550	1.154571	253,486	219,550	0.190534	41,832
Calendar Year 2013	-		-	-		-
Calendar Year 2014	-		-	-		-
Calendar Year 2016	-		-	-		-
Calendar Year 2018	-		-	-		-
Cumulative Index as of Dec. 31, 2020		1.345105		-		-
			-			(8)
Totals	17,693,792		16,201,470	17,693,792		7,598,530
Ending Inventory at LIFO Valuation			16,201,470			
Less: Ending Inventory at Current Cost			23,800,000			
LIFO Reserve at End of Year - Dec. 31, 2020			7,598,530			

Calendar Year 2020 Surrogate Inventory Cost ***(Average 2017, 2018 & 2019)***				***Composition & Proof of LIFO Reserve as of Dec. 31, 2020 - Surrogate Cost***		
	Base Dollars	***Valuation Factor***	***LIFO Valuation***	***Base Dollars***	***Proof Factor***	***Composition of LIFO Reserve***
Analysis of Year-End LIFO Inventory Layers						
Calendar Year 1985	2,279,795	0.517470	1,179,726	2,279,795	0.827635	1,886,838
Calendar Year 1992	917,975	0.649710	596,418	917,975	0.695395	638,355
Calendar Year 1994	527,962	0.708260	373,934	527,962	0.636845	336,230
Calendar Year 1995	466,372	0.737590	343,991	466,372	0.607515	283,328
Calendar Year 1996	48,996	0.752690	36,879	48,996	0.592415	29,026
Calendar Year 1997	525,898	0.775950	408,071	525,898	0.569155	299,317
Calendar Year 1999	2,257,479	0.830310	1,874,407	2,257,479	0.514795	1,162,139
Calendar Year 2000	151,649	1.016410	154,138	151,649	0.328695	49,846
Calendar Year 2001	1,033,581	0.850860	879,433	1,033,581	0.494245	510,842
Calendar Year 2002	1,354,753	0.880270	1,192,548	1,354,753	0.464835	629,737
Rebased as of 12/31/06	-	-	-	-	-	-
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.609094	5,825,659
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.225695	894,420
Calendar Year 2011	3,946,822	1.133130	4,472,262	3,946,822	0.211975	836,628
Calendar Year 2012	10,587,533	1.154570	12,224,048	10,587,533	0.190535	2,017,296
Calendar Year 2013	735,297	1.197870	880,790	735,297	0.147235	108,262
Calendar Year 2014	-		-	-		-
Calendar Year 2016	-		-	-		-
Calendar Year 2018	-		-	-		-
Calendar Year 2020	4,576,061	1.345105	6,155,280	4,576,061	-	-
Cumulative Index as of Dec. 31, 2020		1.345105		-	-	-
			-			36
Totals	33,373,133		35,208,102	33,373,133		9,682,300
Ending Inventory at LIFO Valuation			35,208,102			
Less: Ending Inventory at Surrogate Cost			44,890,402			
LIFO Reserve at End of Year			9,682,300			

Note: All annual historical layers retain their individual status. The subtotal for "all prior years" simply shows the average rate, and this is reflected in the computational schedules to avoid repeating all of the individual detail by years. All rounding dollar amounts are due to differences in the display of decimal calculations.

XYZ, Inc.

Composition of LIFO Inventory Pool & Contribution Made by Each Layer to the LIFO Reserve

For the Years Indicated Below

Calendar Year 2018

	Base Dollars	*Valuation Factor*	*LIFO Valuation*	*Composition & Proof of LIFO Reserve as of Dec. 31, 2018* *Base Dollars*	*Proof Factor*	*Composition of LIFO Reserve*
Analysis of Year-End LIFO Inventory Layers						
Calendar Year 1985	2,279,795	0.517470	1,179,726	2,279,795	0.786040	1,792,010
Calendar Year 1992	917,975	0.649710	596,418	917,975	0.653800	600,172
Calendar Year 1994	527,962	0.708260	373,934	527,962	0.595250	314,269
Calendar Year 1995	466,372	0.737590	343,991	466,372	0.565920	263,929
Calendar Year 1996	48,996	0.752690	36,879	48,996	0.550820	26,988
Calendar Year 1997	525,898	0.775950	408,071	525,898	0.527560	277,443
Calendar Year 1999	2,257,479	0.830310	1,874,407	2,257,479	0.473200	1,068,239
Calendar Year 2000	151,649	1.016410	154,138	151,649	0.287100	43,538
Calendar Year 2001	1,033,581	0.850860	879,433	1,033,581	0.452650	467,850
Calendar Year 2002	1,354,753	0.880270	1,192,548	1,354,753	0.423240	573,386
Rebased as of 12/31/06	-	-	-	-	-	-
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.567499	5,427,825
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.184100	729,581
Calendar Year 2011	3,946,822	1.133130	4,472,262	3,946,822	0.170380	672,460
Calendar Year 2012	10,587,533	1.154570	12,224,048	10,587,533	0.148940	1,576,907
Calendar Year 2013	3,712,422	1.197870	4,446,999	3,712,422	0.105640	392,180
Calendar Year 2014	56,248	1.217070	68,458	56,248	0.086440	4,862
Calendar Year 2016	1,113,883	1.274250	1,419,365	1,113,883	0.029260	32,592
Calendar Year 2018	8,548,339	1.303510	11,142,845	8,548,339	-	-
Cumulative Index as of Dec. 31, 2018		1.303510		-	-	-
			-			1
Totals	41,492,667		45,249,699	41,492,667		8,836,408
Ending Inventory at LIFO Valuation			45,249,699			
Less: Ending Inventory at Current Cost			54,086,107			
LIFO Reserve at End of Year - Dec. 31, 2018			8,836,408			

Calendar Year 2019

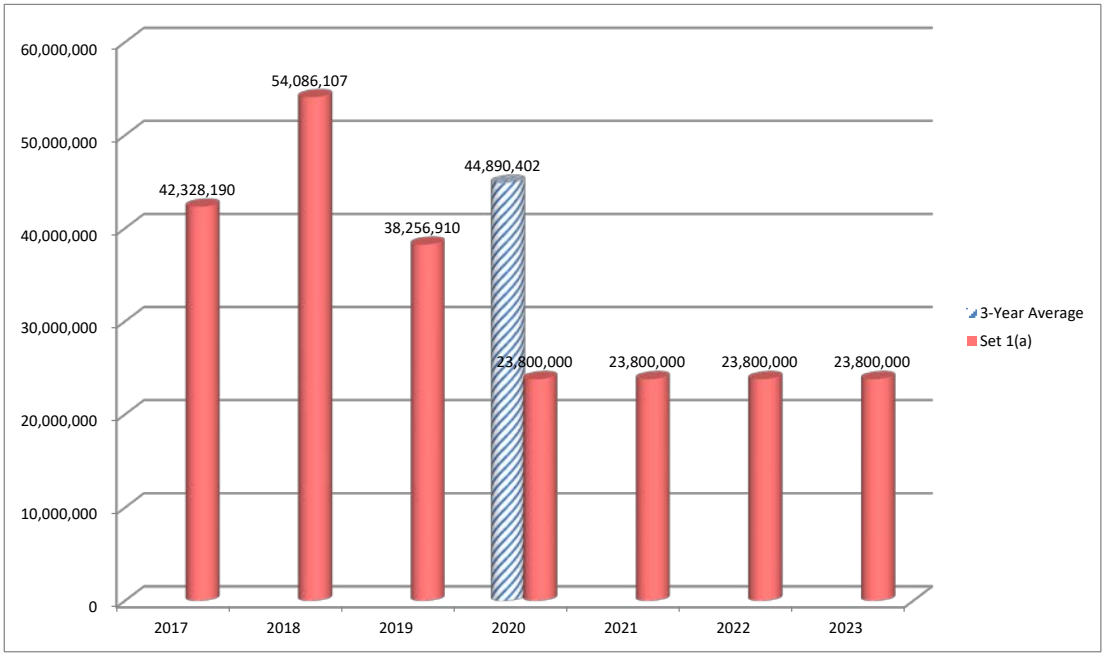
	Base Dollars	*Valuation Factor*	*LIFO Valuation*	*Composition & Proof of LIFO Reserve as of Dec. 31, 2019* *Base Dollars*	*Proof Factor*	*Composition of LIFO Reserve*
Analysis of Year-End LIFO Inventory Layers						
Calendar Year 1985	2,279,795	0.517470	1,179,726	2,279,795	0.811028	1,848,978
Calendar Year 1992	917,975	0.649710	596,418	917,975	0.678788	623,110
Calendar Year 1994	527,962	0.708260	373,934	527,962	0.620238	327,462
Calendar Year 1995	466,372	0.737590	343,991	466,372	0.590908	275,583
Calendar Year 1996	48,996	0.752690	36,879	48,996	0.575808	28,212
Calendar Year 1997	525,898	0.775950	408,071	525,898	0.552548	290,584
Calendar Year 1999	2,257,479	0.830310	1,874,407	2,257,479	0.498188	1,124,649
Calendar Year 2000	151,649	1.016410	154,138	151,649	0.312088	47,328
Calendar Year 2001	1,033,581	0.850860	879,433	1,033,581	0.477638	493,678
Calendar Year 2002	1,354,753	0.880270	1,192,548	1,354,753	0.448228	607,238
Rebased as of 12/31/06	-	-	-	-	-	-
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.592487	5,666,822
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.209088	828,607
Calendar Year 2011	3,946,822	1.133130	4,472,262	3,946,822	0.195368	771,083
Calendar Year 2012	10,587,533	1.154570	12,224,048	10,587,533	0.173928	1,841,468
Calendar Year 2013	735,297	1.197870	880,790	735,297	0.130628	96,051
Calendar Year 2014	-		-	-		-
Calendar Year 2016	-		-	-		-
Calendar Year 2018	-		-	-		-
Cumulative Index as of Dec. 31, 2019		1.328498		-		-
			-			57
Totals	28,797,072		29,052,822	28,797,072		9,204,088
Ending Inventory at LIFO Valuation			29,052,822			
Less: Ending Inventory at Current Cost			38,256,910			
LIFO Reserve at End of Year - Dec. 31, 2019			9,204,088			

Note: All annual historical layers retain their individual status. The subtotal for "all prior years" simply shows the average rate, and this is reflected in the computational schedules to avoid repeating all of the individual detail by years. All rounding dollar amounts are due to differences in the display of decimal calculations.

Facts & Summary of Results for Case Study Sets 1(a) & 2(a)

For 2021 through 2023, Taxpayer's Year-End Inventory Levels Are Not Built Back Up to the Dec. 31, 2019 Pre-Liquidation Level

Actual (Historical) Cost Dec. 31, 2017 - 2020 | **Projected 3-Year Recovery Period**



	2017	2018	2019	2020	2021	2022	2023
3-Year Average				44,890,402			
Set 1(a)	42,328,190	54,086,107	38,256,910	23,800,000	23,800,000	23,800,000	23,800,000

Sets 1(a) & 2(a) … For 2021 - 2023, the year-end inventory levels remain at the same level as the actual Dec. 31, 2020 level ($23,800,000). Throughout the entire 3-year recovery period, the taxpayer's inventory level has not been built back up to the Dec. 31, 2019 pre-liquidation level of $38,256,910. The 3-year average ending inventory level is $44,890,402. This amount is substituted for/used in the LIFO calculations instead of the actual lower cost.

Summary of Results for Case Study Sets 1(a) & 2(a)

1. Impact of the decrement in the amount of $1,899,399 in 2020 (if actual cost is used) is increased during the period from 2021 through 2023 by $143,333 in 2023 for a total decrement impact of $2,042,732. If the historical substitute cost method is used, the 2020 decrement is shifted to 2021 and becomes $2,125,353; in addition small amounts of decrement carryback are reflected in 2022 ($49,336) and 2023 ($52,377) for a total decrement impact under this substitute cost method of $2,227,066. The net amount of the difference in the decrement carryback impact is $184,334. This is in contrast to the impact of the decrement that would have been felt in 2020 ($1,899,399) if the actual cost method had been used that year.
2. Throughout the entire 3-year recovery period, the taxpayer's inventory level has not been built back up to the Dec. 31, 2019 pre-liquidation level of $38,256,910. The entire impact of inventory liquidation (decrement) incurred in 2020 is shifted to 2021.
3. Using the substitute cost method, there is additional inflation of $184,385 in 2020 because of the higher amount of base dollars avoided the decrement in base dollars computed for that year ($11,103,317 x 0.016606 or [1.345105 - 1.328498]).
4. Instead of having a decrease in the LIFO reserve of $1,605,572 in 2020, using the substitute cost method results in a small increase in the LIFO reserve for 2020 of $478,212. However, under this method in 2021, there is a net decrease in the LIFO reserve of $1,831,563.
5. At the end of 2021, there is the possibility that the ending inventory levels in the remaining 2 years of the recovery period may be increased to the pre-liquidation level. Because of this possibility, any adjustment to reflect the involuntary liquidation of inventory at Dec. 31, 2020 should be postponed until the end of the 3-year recovery period.
6. The computations of the LIFO valuations and the LIFO reserves for 2021 and 2022 and 2023 under both methods (actual cost and substitute cost) are identical … when made with the "knowledge" that the inventory liquidation amount was never restored.
7. Accordingly, it may be desirable to postpone the taxpayer's adjustment for relief until the end of 2023 (i.e., until the end of the 3-year recovery period). This approach may be more desirable for equitable purposes or more logically consistent with adjustments that would be made under the other case study scenarios.
8. If the adjustment for relief (in this case) is postponed until Dec. 31, 2023, when it is known for a fact that the inventory levels were never restored, the amount of the postponed adjustment is $867,410.
9. If the adjustment for relief (in this case) is postponed until Dec. 31, 2023, then the amount of the LIFO reserve at Dec. 31, 2019/Jan. 1, 2020 ($9,204,088) would be decreased by $867,410 to $8,336,678 as of Dec. 31, 2023.
10. The overall effect of postponing the adjustment is to allow the taxpayer to reduce the amount of the impact of the decrement incurred in 2020 by the amount of inflation reflected in the inventory over the 4-year period (2020 through 2023). At that time, the taxpayer would reflect a single, lump-sum adjustment to increase income (i.e., by reducing the LIFO reserve) by $867,410. The relief to the taxpayer comes in the form of allowing it to postpone the impact of its decrease in inventory in 2020 for 3 years.
11. As of Dec. 31, 2023, the LIFO layer histories are identical regardless of whether they are computed under the substitute cost calculation method or the actual cost method. They reflect base dollars of $17,046,523 valued at $15,463,322, and the LIFO reserve at that date under either method is $8,336,678 ($23,800,000 - $15,463,322).
12. For 2024 and subsequent years' LIFO calculations, the taxpayer would continue to use this LIFO layer history as calculated under the 3-year average substitute cost method.

Sets 1(a) & 2(a) - Analysis of Differences in LIFO Reserve Changes by Year

Fact Pattern

1(a) … For 2021 - 2023, the year-end inventory levels remain at the same level as the actual Dec. 31, 2020 level ($23,800,000). Throughout the entire 3-year recovery period, the taxpayer's inventory level has not been built back up to the Dec. 31, 2019 pre-liquidation level of $38,256,910. The 3-year average ending inventory level is $44,890,402. This amount is substituted for/used in the LIFO calculations instead of the actual lower cost.

	2020	2021	2022	2023	Total
2(a) Substitute Level					
Due to Inflation	478,212	293,827	293,827	293,827	1,359,694
Due to Decrement Carryback	0	(2,125,353)	(49,336)	(52,377)	(2,227,066)
Rounding		(37)			(37)
Net Change in LIFO Reserve	478,212	(1,831,563)	244,491	241,450	(867,409)
1(a) Actual Inventory Level					
Due to Inflation	293,827	293,827	293,827	293,827	1,175,309
Due to Decrement Carryback	(1,899,399)	(41,620)	(49,336)	(52,377)	(2,042,732)
Rounding					0
Net Change in LIFO Reserve	(1,605,572)	252,207	244,491	241,450	(867,423)
	2,083,784	(2,083,770)	0	0	14

	1(a)	*2(a)*	*Difference*	*Inflation*	*L/R Payback*
Dec. 31, 2019 LIFO Reserve	9,204,088	9,204,088	0		
2020 LIFO Reserve Change					
Due to Inflation	293,827	478,212	184,385	184,385	
Due to Decrement Carryback	(1,899,399)	0	1,899,399		1,899,399
Rounding			0		
Net Change in LIFO Reserve	(1,605,572)	478,212	2,083,784		
2021 LIFO Reserve Change					
Due to Inflation	293,827	293,827	0	0	
Due to Decrement Carryback	(41,620)	(2,125,353)	(2,083,733)		(2,083,733)
Rounding		(37)	(37)		
Net Change in LIFO Reserve	252,207	(1,831,563)	(2,083,770)		
2022 L/R Change Due to Inflation					
Due to Inflation	293,827	293,827	0	0	
Due to Decrement Carryback	(49,336)	(49,336)	0		0
Rounding			0		
Net Change in LIFO Reserve	244,491	244,491	0		
2023 L/R Change Due to Inflation					
Due to Inflation	293,827	293,827	0	0	
Due to Decrement Carryback	(52,377)	(52,377)	0		0
Rounding			0		
Net Change in LIFO Reserve	241,450	241,450	0		
Subtotal	(867,423)	(867,409)	14		
Additional Inflation - Per 2(a)	184,385	-	-	184,385	
Less LIFO Reserve Payback - Per 2(a)	(184,334)	-	-		(184,334)
Rounding	(38)	(1)	(14)		
Dec. 31, 2023 LIFO Reserve	8,336,678	8,336,678			
			(0)		
Dec. 31, 2023 LIFO Reserve	8,336,678				
Dec. 31, 2019 LIFO Reserve	(9,204,088)				
*Net Adjustment	(867,410)				

XYZ, Inc. - 1(a)

1(a): Three-Year Projection of LIFO Inventories - Based on Actual Inventory Amount for Dec. 31, 2020
For 2021 - 2023: Ending Inventories Remain at Same Level as Actual Dec. 31, 2020 Level

	2018	2019	2020	2021	2022	2023
A. Beginning-of-year inventory at base date cost	32,944,328	41,492,667	28,797,109	17,693,792	17,475,350	17,259,605
B. End-of-year inventory at end-of-year (current) prices	54,086,107	38,256,910	23,800,000 *	23,800,000 *	23,800,000 *	23,800,000 *
C. End-of-year inventory at beginning of year (base prices)	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced
D. Current Year Price Index: End of year inventory priced at end-of-year prices (divided by) Ratio of: ---------- End of year inventory priced at beginning-of-year prices	1.014530	1.019170	1.012500	1.012500	1.012500	1.012500
E. Cumulative link-chain index: Current-year price index (Line D) multiplied by (x) Prior year's cumulative index (Line E of prior year)	1.303510	1.328498	1.345105	1.361918	1.378942	1.396179
F. End-of-year inventory at base date cost (Line B divided by Line E)	41,492,667	28,797,109	17,693,792	17,475,350	17,259,605	17,046,524
G. Current year inventory increase (decrease) - Expressed in base dollars						
1. End-of-year inventory at base date cost (Line F)	41,492,667	28,797,109	17,693,792	17,475,350	17,259,605	17,046,524
2. Beginning-of-year inventory at base date cost (Line A)	32,944,328	41,492,667	28,797,109	17,693,792	17,475,350	17,259,605
3. Current-year increment (G(1) exceeds G(2)) or decrease (if G(2) exceeds G(1))	8,548,339	(12,695,558)	(11,103,317)	(218,442)	(215,745)	(213,082)
	x 1.303510	x -	x -	-	x -	x -
4. LIFO valuation of current-year increment (If G(1) exceeds G(2), multiply Line G(3) by Line E)	11,142,846	N/A	N/A	N/A	N/A	N/A

H. Analysis of Year-End Inventory LIFO "Layers"

Calendar Year 2018

	Base Dollars		*Valuation Factor*	
Calendar Year 1985	2,279,795	x	0.517470	1,179,726
Calendar Year 1992	917,975	x	0.649710	596,418
Calendar Year 1994	527,962	x	0.708260	373,934
Calendar Year 1995	466,372	x	0.737590	343,991
Calendar Year 1996	48,996	x	0.752690	36,879
Calendar Year 1997	525,898	x	0.775950	408,071
Calendar Year 1999	2,257,479	x	0.830310	1,874,407
Calendar Year 2000	151,649	x	1.016410	154,138
Calendar Year 2001	1,033,581	x	0.850860	879,433
Calendar Year 2002	1,354,753	x	0.880270	1,192,548
Rebased as of 12/31/06	0	x	1.000000	-
* Subtotal - All Prior Years	9,564,460			7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	3,712,422	x	1.197870	4,446,999
Calendar Year 2014	56,248	x	1.217070	68,458
Calendar Year 2016	1,113,883	x	1.274250	1,419,365
Calendar Year 2018	8,548,339	x	1.303510	11,142,845
	41,492,667			45,249,699

Calendar Year 2019

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	735,297	x	1.197870	880,790
	28,797,072			29,052,822

Calendar Year 2020

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	219,550	x	1.154570	253,486
	17,693,792			16,201,470

Calendar Year 2021

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	1,108	x	1.154570	1,279
	17,475,350			15,949,263

Calendar Year 2022

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,732,185	x	1.133130	4,229,051
Calendar Year 2012		x		-
	17,259,605			15,704,772

Calendar Year 2023

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,519,103	x	1.133130	3,987,601
Calendar Year 2012	-	x	-	-
	17,046,523			15,463,322

	2018	2019	2020	2021	2022	2023	
Ending Inventory at LIFO Valuation, per Above	45,249,699	29,052,822	16,201,470	15,949,263	15,704,772	15,463,322	
Less: Ending Inventory at End-of-Year Prices (Line B)	54,086,107	38,256,910	23,800,000	23,800,000	23,800,000	23,800,000	
LIFO Reserve at End of the Year	8,836,408	9,204,088	7,598,530	7,850,737	8,095,228	8,336,678	
LIFO Reserve at Beginning of Year	8,221,336	8,836,408	9,204,088	7,598,530	7,850,737	8,095,228	
Net Increase (Decrease) in LIFO Reserve	615,072	367,680	(1,605,558)	252,207	244,491	241,450	
Net Change Over 4 Years			(1,605,558)	252,207	244,491	241,450	(867,410) Net Change

† The calculations for 2020 reflect the actual ending inventory as of Dec. 31, 2020

Note: See accompanying schedules for proofs and reconciliations of (1) composition of the layers in the LIFO Reserve balances as of year-end and (2) components of the changes in the LIFO Reserve for the years indicated above.

XYZ, INC. - PROJECTIONS 1(a) ... USING ACTUAL COST AT DEC. 31, 2020

SUMMARY OF LIFO RESERVE BALANCES & ANALYSES OF NET INCREASE (DECREASE) IN LIFO RESERVE

FOR THE YEARS INDICATED BELOW

	2019	Actual Cost 2020	Projected 2021	Projected 2022	Projected 2023
LIFO Reserve at End of the Year	9,204,088	7,598,530	7,850,737	8,095,228	8,336,678
LIFO Reserve at Beginning of Year	8,836,408	9,204,088	7,598,530	7,850,737	8,095,228
Net Increase (Decrease) in LIFO Reserve	367,680	(1,605,558)	252,207	244,491	241,450

Analysis of Net Increase (Decrease) in LIFO Reserve	2019	Actual Cost 2020	Projected 2021	Projected 2022	Projected 2023
Increase in LIFO reserve due to inflation					
Cumulative index at end-of-year	1.328498	1.345105	1.361918	1.378942	1.396179
Cumulative index at beginning-of-year	(1.303510)	(1.328498)	(1.345105)	(1.361918)	(1.378942)
Difference - Effective rate of inflation	0.024988	0.016606	0.016814	0.017024	0.017237
Lower of beginning-of-year or end-of-year inventory expressed in base dollars	28,797,109	17,693,792	17,475,350	17,259,605	17,046,524
Increase in LIFO reserve due to inflation	719,590	293,827	293,827	293,827	293,827
Decrease due to payback (reduction in LIFO reserve) caused by the carry back of the decrement against prior years' layers (per schedule below)	(351,959) *	(1,899,399) †	(41,620) **	(49,336) ††	(52,377) ***
Rounding	49				
Net increase (decrease) in LIFO reserve at year-end	367,680	(1,605,572)	252,207	244,491	241,450

2019 L/R Payback Due to Decrement in Base Dollars

	Base Dollars		*Amount Contributed to LIFO Reserve at Dec. 31, 2018*		*LIFO Reserve Recapture*
December 31, 2013 Layer	2,977,125	x	0.10564	(1.30351 - 1.19787) =	314,505
December 31, 2014 Layer	56,248	x	0.08644	(1.30351 - 1.21707) =	4,862
December 31, 2016 Layer	1,113,883	x	0.02926	(1.30351 - 1.27425) =	32,592
December 31, 2018 Layer	8,548,339	x	0	(1.30351 - 1.30351) =	0
	12,695,595			Per Above	351,959 *
	(37)				
Per schedule	12,695,558				

2020 L/R Payback Due to Decrement in Base Dollars

			Amount Contributed to LIFO Reserve at Dec. 31, 2019		
December 31, 2012 Layer	10,367,983	x	0.173928	(1.328498 - 1.154570) =	1,803,284
December 31, 2013 Layer	735,297	x	0.130628	(1.328498 - 1.197870) =	96,052
	11,103,280			Per Above	1,899,336
	37				63
Per schedule	11,103,317				1,899,399 †

2021 L/R Payback Due to Decrement in Base Dollars

			Amount Contributed to LIFO Reserve at Dec. 31, 2020		
December 31, 2012 Layer	218,442	x	0.190535	(1.345105 - 1.154570) =	41,620
Per schedule	218,442			Per Above	41,620 **

2022 L/R Payback Due to Decrement in Base Dollars

			Amount Contributed to LIFO Reserve at Dec. 31, 2021		
December 31, 2011 Layer	214,637	x	0.228788	(1.361918 - 1.133130) =	49,106
December 31, 2012 Layer	1,108	x	0.207348	(1.361918 - 1.154570) =	230
	215,745			Per Above	49,336
	-				-
Per schedule	215,745				49,336 ††

2023 L/R Payback Due to Decrement in Base Dollars

			Amount Contributed to LIFO Reserve at Dec. 31, 2022		
December 31, 2011 Layer	213,082	x	0.245812	(1.378942 - 1.133130) =	52,377
Per schedule	213,082			Per Above	52,377 ***

Note: All rounding dollar amounts are due to differences in the display of decimal calculations.

XYZ, Inc. - Projections 1(a) ... Using Actual Cost Dec. 31, 2020

Composition of LIFO Inventory Pool & Contribution Made by Each Layer to the LIFO Reserve

For the Years Indicated Below

Calendar Year 2020 Actual Inventory				***Composition & Proof of LIFO Reserve as of Dec. 31, 2020***		
	Base Dollars	***Valuation Factor***	***LIFO Valuation***	***Base Dollars***	***Proof Factor***	***Composition of LIFO Reserve***
Analysis of Year-End LIFO Inventory Layers						
Calendar Year 1985	2,279,795	0.517470	1,179,726	2,279,795	0.827635	1,886,838
Calendar Year 1992	917,975	0.649710	596,418	917,975	0.695395	638,355
Calendar Year 1994	527,962	0.708260	373,934	527,962	0.636845	336,230
Calendar Year 1995	466,372	0.737590	343,991	466,372	0.607515	283,328
Calendar Year 1996	48,996	0.752690	36,879	48,996	0.592415	29,026
Calendar Year 1997	525,898	0.775950	408,071	525,898	0.569155	299,317
Calendar Year 1999	2,257,479	0.830310	1,874,407	2,257,479	0.514795	1,162,139
Calendar Year 2000	151,649	1.016410	154,138	151,649	0.328695	49,846
Calendar Year 2001	1,033,581	0.850860	879,433	1,033,581	0.494245	510,842
Calendar Year 2002	1,354,753	0.880270	1,192,548	1,354,753	0.464835	629,737
Rebased as of 12/31/06	-	-	-	-	-	-
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.609094	5,825,659
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.225695	894,420
Calendar Year 2011	3,946,822	1.133130	4,472,262	3,946,822	0.211975	836,628
Calendar Year 2012	219,550	1.154571	253,486	219,550	0.190534	41,832
Cumulative Index as of Dec. 31, 2020		1.345105		-		-
			-			(8)
Totals	17,693,792		16,201,470	17,693,792		7,598,530
Ending Inventory at LIFO Valuation			16,201,470			
Less: Ending Inventory at Current Cost			23,800,000			
LIFO Reserve at End of Year - Dec. 31, 2020			7,598,530			

Calendar Year 2023 Actual Inventory - Projected				***Composition & Proof of LIFO Reserve as of Dec. 31, 2023***		
	Base Dollars	***Valuation Factor***	***LIFO Valuation***	***Base Dollars***	***Proof Factor***	***Composition of LIFO Reserve***
Analysis of Year-End LIFO Inventory Layers						
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.660168	6,314,154
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.276769	1,096,824
Calendar Year 2011	3,519,103	1.133130	3,987,601	3,519,103	0.263049	925,697
Cumulative Index as of Dec. 31, 2023		1.396179		-		-
			-			3
Totals	17,046,523		15,463,322	17,046,523		8,336,678
Ending Inventory at LIFO Valuation			15,463,322			
Less: Ending Inventory at Current Cost			23,800,000			
LIFO Reserve at End of Year - Dec. 31, 2023			8,336,678			

Note: All annual historical layers retain their individual status. The subtotal for "all prior years" simply shows the average rate, and this is reflected in the computational schedules to avoid repeating all of the individual detail by years. All rounding dollar amounts are due to differences in the display of decimal calculations.

XYZ, Inc. - 2(a)

2(a): Three-Year Projection of LIFO Inventories - Based on Substitute Inventory Amount for Dec. 31, 2020

For 2021 - 2023: Ending Inventories Remain at Same Level as Actual Dec. 31, 2020 Level

	2018	2019	2020 Substitute Cost	2021	2022	2023
A. Beginning-of-year inventory at base date cost	32,944,328	41,492,667	28,797,109	33,373,170	17,475,350	17,259,605
B. End-of-year inventory at end-of-year (current) prices	54,086,107	38,256,910	44,890,402	23,800,000 *	23,800,000 *	23,800,000 *
C. End-of-year inventory at beginning of year (base prices)	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced
D. Current Year Price Index: End of year inventory priced at end-of-year prices (divided by) Ratio of: End of year inventory priced at beginning-of-year prices	1.014530	1.019170	1.012500	1.012500	1.012500	1.012500
E. Cumulative link-chain index: Current-year price index (Line D) multiplied by (x) Prior year's cumulative index (Line E of prior year)	1.303510	1.328498	1.345105	1.361918	1.378942	1.396179
F. End-of-year inventory at base date cost (Line B divided by Line E)	41,492,667	28,797,109	33,373,170	17,475,350	17,259,605	17,046,524
G. Current year inventory increase (decrease) - Expressed in base dollars						
1. End-of-year inventory at base date cost (Line F)	41,492,667	28,797,109	33,373,170	17,475,350	17,259,605	17,046,524
2. Beginning-of-year inventory at base date cost (Line A)	32,944,328	41,492,667	28,797,109	33,373,170	17,475,350	17,259,605
3. Current-year increment (G(1) exceeds G(2)) or decrease (if G(2) exceeds G(1))	8,548,339	(12,695,558)	4,576,061	(15,897,820)	(215,745)	(213,082)
	x 1.303510	x -	x 1.345105	-	x -	x -
4. LIFO valuation of current-year increment (If G(1) exceeds G(2), multiply Line G(3) by Line E)	11,142,846	N/A	6,155,281	N/A	N/A	N/A

H. Analysis of Year-End Inventory LIFO "Layers"

Calendar Year 2018 - Based on Actual Cost

	Base Dollars		*Valuation Factor*	
Calendar Year 1985	2,279,795	x	0.517470	1,179,726
Calendar Year 1992	917,975	x	0.649710	596,418
Calendar Year 1994	527,962	x	0.708260	373,934
Calendar Year 1995	466,372	x	0.737590	343,991
Calendar Year 1996	48,996	x	0.752690	36,879
Calendar Year 1997	525,898	x	0.775950	408,071
Calendar Year 1999	2,257,479	x	0.830310	1,874,407
Calendar Year 2000	151,649	x	1.016410	154,138
Calendar Year 2001	1,033,581	x	0.850860	879,433
Calendar Year 2002	1,354,753	x	0.880270	1,192,548
Rebased as of 12/31/06	0	x	1.000000	-
** Subtotal - All Prior Years	9,564,460			7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	3,712,422	x	1.197870	4,446,999
Calendar Year 2014	56,248	x	1.217070	68,458
Calendar Year 2016	1,113,883	x	1.274250	1,419,365
Calendar Year 2018	8,548,339	x	1.303510	11,142,845
	41,492,667			45,249,699

Calendar Year 2019 - Based on Actual Cost

	Base Dollars		*Valuation Factor*	
** Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	735,297	x	1.197870	880,790
	28,797,072			29,052,822

Calendar Year 2020 - Substitute Cost

	Base Dollars		*Valuation Factor*	
** Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	735,297	x	1.197870	880,790
Calendar Year 2020	4,576,061	x	1.345105	6,155,280
	33,373,133			35,208,102

Calendar Year 2021 - Substitute Cost

	Base Dollars		*Valuation Factor*	
** Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	1,108	x	1.154570	1,279
Calendar Year 2013		x		-
Calendar Year 2020		x		-
	17,475,350			15,949,263

Calendar Year 2022 - Substitute Cost

	Base Dollars		*Valuation Factor*	
** Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,732,185	x	1.133130	4,229,051
Calendar Year 2012		x		-
Calendar Year 2013		x		-
Calendar Year 2020		x		-
	17,259,605			15,704,772

Calendar Year 2023 - Substitute Cost

	Base Dollars		*Valuation Factor*	
** Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,519,103	x	1.133130	3,987,601
Calendar Year 2012		x		-
Calendar Year 2013		x		-
Calendar Year 2020		x		-
	17,046,523			15,463,322

Ending Inventory at LIFO Valuation, per Above	45,249,699	29,052,822	35,208,102	15,949,263	15,704,772	15,463,322	
Less: Ending Inventory at End-of-Year Prices (Line B)	54,086,107	38,256,910	44,890,402	23,800,000	23,800,000	23,800,000	
LIFO Reserve at End of the Year	8,836,408	9,204,088	9,682,300	7,850,737	8,095,228	8,336,678	
LIFO Reserve at Beginning of Year	8,221,336	8,836,408	9,204,088	9,682,300	7,850,737	8,095,228	
Net Increase (Decrease) in LIFO Reserve	615,072	367,680	478,212	(1,831,563)	244,491	241,450	
Net Change Over 4 Years			478,212	(1,831,563)	244,491	241,450	(867,410) Net Change

† The calculations for 2020 reflect the 3-year historical average of ending inventory costs (Dec. 31, 2017 - 2019) - substitute cost replaces actual cost - as of Dec. 31, 2020.

* Actual cost of Dec. 31, 2020 inventory is $23,800,000. This is $21,090,402 less than the substitute cost ($44,890,402).

** The subtotal for all prior years 1985 through calendar year 2009.

Note: See accompanying schedules for proofs and reconciliations of (1) composition of the layers in the LIFO Reserve balances as of year-end and (2) components of the changes in the LIFO Reserve for the years indicated above.

XYZ, INC. - PROJECTIONS 2(a) ... USING SUBSTITUTE COST AT DEC. 31, 2020

SUMMARY OF LIFO RESERVE BALANCES & ANALYSES OF NET INCREASE (DECREASE) IN LIFO RESERVE

FOR THE YEARS INDICATED BELOW

	2019	Substitute Cost 2020	Projected 2021	Projected 2022	Projected 2023
LIFO Reserve at End of the Year	9,204,088	9,682,300	7,850,737	8,095,228	8,336,678
LIFO Reserve at Beginning of Year	8,836,408	9,204,088	9,682,300	7,850,737	8,095,228
Net Increase (Decrease) in LIFO Reserve	367,680	478,212	(1,831,563)	244,491	241,450

Analysis of Net Increase (Decrease) in LIFO Reserve	2019	Substitute Cost 2020	Projected 2021	Projected 2022	Projected 2023
Increase in LIFO reserve due to inflation					
Cumulative index at end-of-year	1.328498	1.345105	1.361918	1.378942	1.396179
Cumulative index at beginning-of-year	(1.303510)	(1.328498)	(1.345105)	(1.361918)	(1.378942)
Difference - Effective rate of inflation	0.024988	0.016606	0.016814	0.017024	0.017237
Lower of beginning-of-year or end-of-year inventory expressed in base dollars	28,797,109	28,797,109	17,475,350	17,259,605	17,046,524
Increase in LIFO reserve due to inflation	719,590	478,212	293,827	293,827	293,827
Decrease due to payback (reduction in LIFO reserve) caused by the carry back of the decrement against prior years' layers (per schedule below)	(351,959) *	0 †	(2,125,353) **	(49,336) ††	(52,377) ***
Rounding	49		(37)		
Net increase (decrease) in LIFO reserve at year-end	367,680	478,212	(1,831,563)	244,491	241,450

2019 L/R Payback Due to Decrement in Base Dollars

		Base Dollars		*Amount Contributed to LIFO Reserve at Dec. 31, 2018*		*LIFO Reserve Recapture*
December 31, 2013 Layer		2,977,125	x	0.10564	(1.30351 - 1.19787) =	314,505
December 31, 2014 Layer		56,248	x	0.08644	(1.30351 - 1.21707) =	4,862
December 31, 2016 Layer		1,113,883	x	0.02926	(1.30351 - 1.27425) =	32,592
December 31, 2018 Layer		8,548,339	x	0	(1.30351 - 1.30351) =	0
		12,695,595			Per Above	351,959 *
		(37)				
	Per schedule	12,695,558				

2020 There is no payback because the computations reflect an increment (and not a decrement)

2020 L/R Payback Due to Decrement in Base Dollars - Not Applicable

				Amount Contributed to LIFO Reserve at Dec. 31, 2019		
			x			
	Per schedule	-			Per Above	- †

2021 L/R Payback Due to Decrement in Base Dollars

				Amount Contributed to LIFO Reserve at Dec. 31, 2020		
December 31, 2012 Layer		10,586,462	x	0.190535	(1.345105 - 1.154570) =	2,017,092
December 31, 2013 Layer		735,297	x	0.147235	(1.345105 - 1.197870) =	108,261
December 31, 2020 Layer		4,576,061	x	0	(1.345105 - 1.345105) =	0
	Per schedule	15,897,820			Per Above	2,125,353 **

2022 L/R Payback Due to Decrement in Base Dollars

				Amount Contributed to LIFO Reserve at Dec. 31, 2021		
December 31, 2011 Layer		214,637	x	0.228788	(1.361918 - 1.133130) =	49,106
December 31, 2012 Layer		1,108	x	0.207348	(1.361918 - 1.154570) =	230
		215,745			Per Above	49,336
		-				-
	Per schedule	215,745				49,336 ††

2023 L/R Payback Due to Decrement in Base Dollars

				Amount Contributed to LIFO Reserve at Dec. 31, 2022		
December 31, 2011 Layer		213,082	x	0.245812	(1.378942 - 1.133130) =	52,377
	Per schedule	213,082			Per Above	52,377 ***

Note: All rounding dollar amounts are due to differences in the display of decimal calculations.

XYZ, Inc. - Projections 2(a) ... Using Substitute Cost Dec. 31, 2020

Composition of LIFO Inventory Pool & Contribution Made by Each Layer to the LIFO Reserve

For the Years Indicated Below

Calendar Year 2020 Substitute Inventory Cost *(Average 2017, 2018 & 2019)*				*Composition & Proof of LIFO Reserve as of Dec. 31, 2020 - Substitute Cost*		
	Base Dollars	***Valuation Factor***	***LIFO Valuation***	***Base Dollars***	***Proof Factor***	***Composition of LIFO Reserve***
Analysis of Year-End LIFO Inventory Layers						
Calendar Year 1985	2,279,795	0.517470	1,179,726	2,279,795	0.827635	1,886,838
Calendar Year 1992	917,975	0.649710	596,418	917,975	0.695395	638,355
Calendar Year 1994	527,962	0.708260	373,934	527,962	0.636845	336,230
Calendar Year 1995	466,372	0.737590	343,991	466,372	0.607515	283,328
Calendar Year 1996	48,996	0.752690	36,879	48,996	0.592415	29,026
Calendar Year 1997	525,898	0.775950	408,071	525,898	0.569155	299,317
Calendar Year 1999	2,257,479	0.830310	1,874,407	2,257,479	0.514795	1,162,139
Calendar Year 2000	151,649	1.016410	154,138	151,649	0.328695	49,846
Calendar Year 2001	1,033,581	0.850860	879,433	1,033,581	0.494245	510,842
Calendar Year 2002	1,354,753	0.880270	1,192,548	1,354,753	0.464835	629,737
Rebased as of 12/31/06	-	-	-	-	-	-
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.609094	5,825,659
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.225695	894,420
Calendar Year 2011	3,946,822	1.133130	4,472,262	3,946,822	0.211975	836,628
Calendar Year 2012	10,587,533	1.154570	12,224,048	10,587,533	0.190535	2,017,296
Calendar Year 2013	735,297	1.197870	880,790	735,297	0.147235	108,262
Calendar Year 2020	4,576,061	1.345105	6,155,280	4,576,061	(0.000000)	-
Cumulative Index as of Dec. 31, 2020		1.345105		-	-	-
			-			36
Totals	33,373,133		35,208,102	33,373,133		9,682,300
Ending Inventory at LIFO Valuation			35,208,102			
Less: Ending Inventory at Current Cost			44,890,402			
LIFO Reserve at End of Year - Dec. 31, 2020			9,682,300			

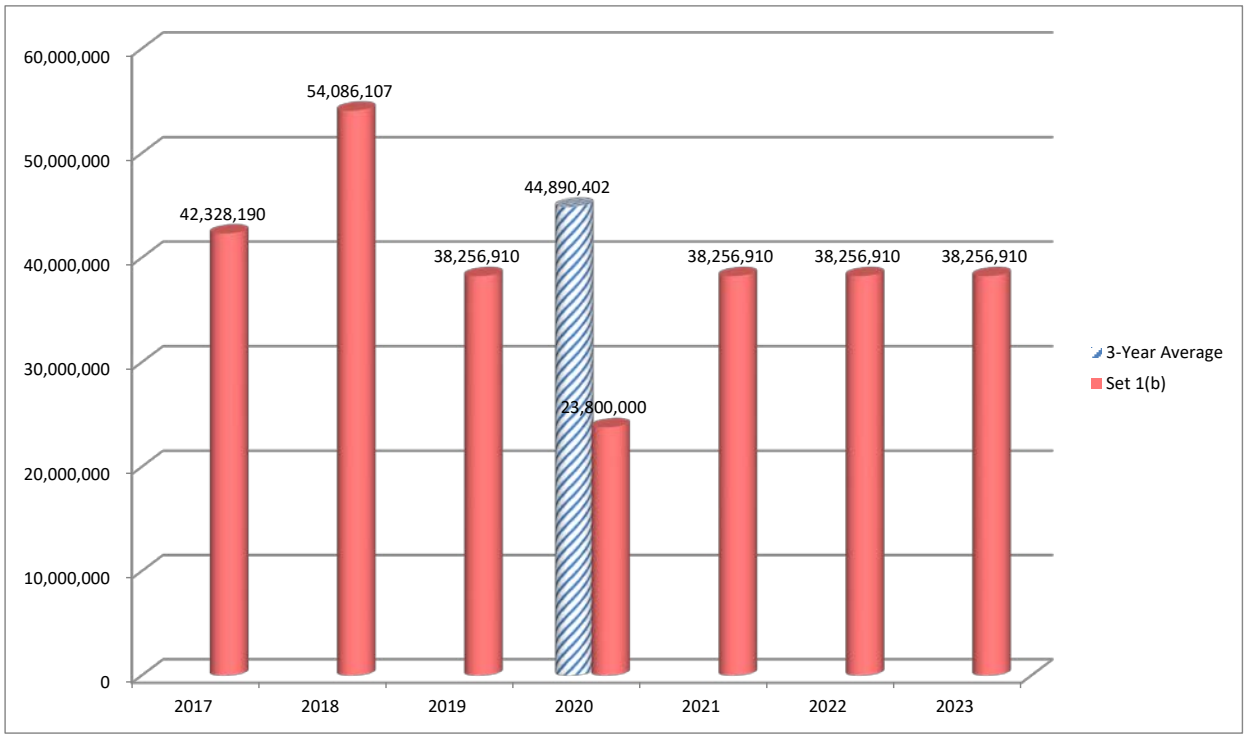
Calendar Year 2023 Substitute Inventory - Projected				*Composition & Proof of LIFO Reserve as of Dec. 31, 2023*		
	Base Dollars	***Valuation Factor***	***LIFO Valuation***	***Base Dollars***	***Proof Factor***	***Composition of LIFO Reserve***
Analysis of Year-End LIFO Inventory Layers						
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.660168	6,314,154
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.276769	1,096,824
Calendar Year 2011	3,519,103	1.133130	3,987,601	3,519,103	0.263049	925,697
Cumulative Index as of Dec. 31, 2023		1.396179		-		-
			-			3
Totals	17,046,523		15,463,322	17,046,523		8,336,678
Ending Inventory at LIFO Valuation			15,463,322			
Less: Ending Inventory at Current Cost			23,800,000			
LIFO Reserve at End of Year - Dec. 31, 2023			8,336,678			

Note: All annual historical layers retain their individual status. The subtotal for "all prior years" simply shows the average rate, and this is reflected in the computational schedules to avoid repeating all of the individual detail by years. All rounding dollar amounts are due to differences in the display of decimal calculations.

Facts & Summary of Results for Case Study Sets 1(b) & 2(b)

At Dec. 31, 2021, the End of the First Year After the Involuntary Liquidation , the Taxpayer's Inventory Level Has Returned to the Pre-Liquidation Level

Actual (Historical) Cost Dec. 31, 2017 - 2020 **Projected 3-Year Recovery Period**



	2017	2018	2019	2020	2021	2022	2023
3-Year Average				44,890,402			
Set 1(b)	42,328,190	54,086,107	38,256,910	23,800,000	38,256,910	38,256,910	38,256,910

Sets 1(b) & 2(b) … At the end of 2021, the ending inventory has returned to the Dec. 31, 2019 (pre-liquidation) actual level ($38,256,910). The inventory remains at that level at the end of 2022 and 2023. In other words, by the end of the first year of the recovery period (i.e., as of Dec. 31, 2021), the taxpayer's inventory level has returned to the Dec. 31, 2019 pre-liquidation level.

Summary of Results for Case Study Sets 1(b) & 2(b)

1. Impact of the decrement in the amount of $1,899,336 in 2020 (if actual cost is used) is increased by $5,832 in 2023 for a total decrement impact of $1,905,231. If the historical substitute cost method is used, small amounts of decrement carryback are reflected in 2021 ($104,088), 2022 ($70,666) and 2023 ($76,850) for a total decrement impact under this method of $251,604. The net amount of the difference in the decrement carryback impact is $1,653,627. This is in contrast to the impact of the decrement that would have been felt in 2020 ($1,899,399) if the actual cost method had been used that year.

2. Technically, the recovery period is 1 year ending Dec. 31, 2021. If the LIFO reserve balances under the different methods were adjusted as of that date (Dec. 31, 2021), the LIFO reserve adjustment would be an increase of $846,432 (from $9,204,088 at Dec. 31, 2019 to $10,050,520 at Dec. 31, 2021). The net increase in the LIFO reserve for the 2-year period as of Dec. 31, 2021 would reflect two years' inflation in the amount of $950,520 ($478,212 for 2020 and $472,308 for 2021). This adjustment would also reflect a reduction of $104,088 for the payback in the LIFO reserve based upon the decrement of $5,282,712. ($846,432 = $950,520 - $104,088). This would bring the LIFO reserve at Dec. 31, 2021 up to $10,050,520.

   The effect of the relief is that (1) the taxpayer is treated as if the liquidation in 2020 had not occurred, (2) the taxpayer continues to use the higher historical average cost substitute method for its LIFO calculations going forward, (3) the taxpayer is allowed to reflect the net benefit of inflation in its LIFO adjustments for 2022 and 2023 ($401,641 + $395,458 = $797,099), and (4) the taxpayer is allowed to deduct $846,432 in its 2021 income tax return.

3. *Alternatively*, it may be desirable to postpone the taxpayer's adjustment for relief until the end of 2023 (i.e., until the end of the 3-year recovery period, even though, technically, the recovery period was shortened to the end of 2021 because at that time, the inventory was restored to the pre-liquidation level). This approach may be more desirable for equitable purposes or more logically consistent with adjustments that would be made under the other case study scenarios.

   If the adjustment is postponed until Dec. 31, 2023, the amount of the postponed adjustment is $1,643,531. This has not been spread over the interim period which would happen if $846,432 of this amount were accelerated into a deduction in 2021 and $401,641 was accelerated as a deduction in 2022.

4. If the alternative (#3 above) of postponing the adjustment for relief until 2023 is followed, then the amount of the LIFO reserve at Dec. 31, 2019/Jan. 1, 2020 ($9,204,088) would be increased by $1,643,531 to $10,847,619 as of Dec. 31, 2023.

5. The overall effect of postponing the adjustment is to make the taxpayer wait until 2023 to get the benefit of a single, lump-sum deduction that, on a year-by-year basis would average to $410,000 per year.

6. In 2024, the LIFO layer history through Dec. 31, 2023 as computed under the substitute cost calculation method reflects base dollars of $27,401,148 valued at $27,409,292. For 2024 and subsequent years' LIFO calculations, the taxpayer would continue to use this LIFO layer history as calculated under the 3-year average substitute cost method.

Sets 1(b) & 2(b) - Analysis of Differences in LIFO Reserve Changes by Year

Fact Pattern

1(b) … At the end of 2021, the ending inventory has returned to the Dec. 31, 2019 (pre-liquidation) actual level ($38,256,910). The inventory remains at that level at the end of 2022 and 2023. In other words, by the end of the first year of the recovery period (i.e., as of Dec. 31, 2021), the taxpayer's inventory level has returned to the Dec. 31, 2019 pre-liquidation level.

	2020	2021	2022	2023	Total
2(b) Substitute Level					
Due to Inflation	478,212	472,308	472,308	472,308	1,895,135
Due to Decrement Carryback	0	(104,088)	(70,666)	(76,850)	(251,604)
Rounding					0
Net Change in LIFO Reserve	478,212	368,220	401,641	395,458	1,643,531
1(b) Actual Inventory Level					
Due to Inflation	293,827	297,500	472,308	472,308	1,535,942
Due to Decrement Carryback	(1,899,399)	0	0	(5,832)	(1,905,231)
Rounding					0
Net Change in LIFO Reserve	(1,605,572)	297,500	472,308	466,476	(369,289)
	2,083,784	70,720	(70,666)	(71,018)	2,012,820

	1(b)	*2(b)*	*Difference*	*Inflation*	*L/R Payback*
Dec. 31, 2019 LIFO Reserve	9,204,088	9,204,088	0		
2020 LIFO Reserve Change					
Due to Inflation	293,827	478,212	184,385	184,385	
Due to Decrement Carryback	(1,899,399)	0	1,899,399		1,899,399
Rounding			0		
Net Change in LIFO Reserve	(1,605,572)	478,212	2,083,784		
2021 LIFO Reserve Change					
Due to Inflation	297,500	472,308	174,808	174,808	
Due to Decrement Carryback	0	(104,088)	(104,088)		(104,088)
Rounding			0		
Net Change in LIFO Reserve	297,500	368,220	70,720		
2022 L/R Change Due to Inflation					
Due to Inflation	472,308	472,308	0	0	
Due to Decrement Carryback	0	(70,666)	(70,666)		(70,666)
Rounding			0		
Net Change in LIFO Reserve	472,308	401,641	(70,666)		
2023 L/R Change Due to Inflation					
Due to Inflation	472,308	472,308	0	0	
Due to Decrement Carryback	(5,832)	(76,850)	(71,018)		(71,018)
Rounding			0		
Net Change in LIFO Reserve	466,476	395,458	(71,018)		
Subtotal	(369,289)	1,643,531	2,012,820		
Additional Inflation - Per 2(b)	359,193	-	-	359,193	
Less LIFO Reserve Payback - Per 2(b)	1,653,627	-	-		1,653,627
Rounding	0	0	0		
Dec. 31, 2023 LIFO Reserve	10,847,619	10,847,619			
			2,012,820		
Dec. 31, 2023 LIFO Reserve	10,847,619				
Dec. 31, 2019 LIFO Reserve	(9,204,088)				
*Net Adjustment	1,643,531				

XYZ, Inc. - 1(b)

1(b): Three-Year Projection of LIFO Inventories - Based on Actual Inventory Amount for Dec. 31, 2020
For 2021 Ending Inventory Returns to 2019 (Pre-Liquidation) Actual Level & Remains at That Level in 2022 & 2023

	2018	2019	2020	2021	2022	2023
A. Beginning-of-year inventory at base date cost	32,944,328	41,492,667	28,797,109	17,693,792	28,090,458	27,743,663
B. End-of-year inventory at end-of-year (current) prices	54,086,107	38,256,910 *	23,800,000 **	38,256,910 *	38,256,910 *	38,256,910 *
C. End-of-year inventory at beginning of year (base prices)	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced
D. Current Year Price Index: End of year inventory priced at end-of-year prices (divided by) Ratio of: End of year inventory priced at beginning-of-year prices	1.014530	1.019170	1.012500	1.012500	1.012500	1.012500
E. Cumulative link-chain index: Current-year price index (Line D) multiplied by (x) Prior year's cumulative index (Line E of prior year)	1.303510	1.328498	1.345105	1.361918	1.378942	1.396179
F. End-of-year inventory at base date cost (Line B divided by Line E)	41,492,667	28,797,109	17,693,792	28,090,458	27,743,663	27,401,148
G. Current year inventory increase (decrease) - Expressed in base dollars						
1. End-of-year inventory at base date cost (Line F)	41,492,667	28,797,109	17,693,792	28,090,458	27,743,663	27,401,148
2. Beginning-of-year inventory at base date cost (Line A)	32,944,328	41,492,667	28,797,109	17,693,792	28,090,458	27,743,663
3. Current-year increment (G(1) exceeds G(2)) or decrease (if G(2) exceeds G(1))	8,548,339	(12,695,558)	(11,103,317)	10,396,666	(346,796)	(342,514)
	x 1.303510	x -	x -	1.361918	x -	x -
4. LIFO valuation of current-year increment (If G(1) exceeds G(2), multiply Line G(3) by Line E)	11,142,846	N/A	N/A	14,159,410	N/A	N/A

H. Analysis of Year-End Inventory LIFO "Layers"

Calendar Year 2018

	Base Dollars		*Valuation Factor*	
Calendar Year 1985	2,279,795	x	0.517470	1,179,726
Calendar Year 1992	917,975	x	0.649710	596,418
Calendar Year 1994	527,962	x	0.708260	373,934
Calendar Year 1995	466,372	x	0.737590	343,991
Calendar Year 1996	48,996	x	0.752690	36,879
Calendar Year 1997	525,898	x	0.775950	408,071
Calendar Year 1999	2,257,479	x	0.830310	1,874,407
Calendar Year 2000	151,649	x	1.016410	154,138
Calendar Year 2001	1,033,581	x	0.850860	879,433
Calendar Year 2002	1,354,753	x	0.880270	1,192,548
Rebased as of 12/31/06	0	x	1.000000	-
* Subtotal - All Prior Years	9,564,460			7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	3,712,422	x	1.197870	4,446,999
Calendar Year 2014	56,248	x	1.217070	68,458
Calendar Year 2016	1,113,883	x	1.274250	1,419,365
Calendar Year 2018	8,548,339	x	1.303510	11,142,845
	41,492,667			45,249,699

Calendar Year 2019

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	735,297	x	1.197870	880,790
	28,797,072			29,052,822

Calendar Year 2020

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	219,550	x	1.154570	253,486
	17,693,792			16,201,470

Calendar Year 2021

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	219,550	x	1.154570	253,486
Calendar Year 2021	10,396,666	x	1.361918	14,159,410
	28,090,458			30,360,879

Calendar Year 2022

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	219,550	x	1.154570	253,486
Calendar Year 2021	10,049,870	x	1.361918	13,687,102
	27,743,662			29,888,572

Calendar Year 2023

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	219,550	x	1.154570	253,486
Calendar Year 2021	9,707,356	x	1.361918	13,220,626
	27,401,148			29,422,096

	2018	2019	2020	2021	2022	2023	
Ending Inventory at LIFO Valuation, per Above	45,249,699	29,052,822	16,201,470	30,360,879	29,888,572	29,422,096	
Less: Ending Inventory at End-of-Year Prices (Line B)	54,086,107	38,256,910	23,800,000	38,256,910	38,256,910	38,256,910	
LIFO Reserve at End of the Year	8,836,408	9,204,088	7,598,530	7,896,031	8,368,338	8,834,814	
LIFO Reserve at Beginning of Year	8,221,336	8,836,408	9,204,088	7,598,530	7,896,031	8,368,338	
Net Increase (Decrease) in LIFO Reserve	615,072	367,680	(1,605,558)	297,500	472,308	466,476	
Net Change Over 4 Years			(1,605,558)	297,500	472,308	466,476	(369,274) Net Change

† The calculations for 2020 reflect the actual ending inventory as of Dec. 31, 2020

Note: See accompanying schedules for proofs and reconciliations of (1) composition of the layers in the LIFO Reserve balances as of year-end and (2) components of the changes in the LIFO Reserve for the years indicated above.

XYZ, INC. - PROJECTIONS 1(b) ... USING ACTUAL COST AT DEC. 31, 2020

SUMMARY OF LIFO RESERVE BALANCES & ANALYSES OF NET INCREASE (DECREASE) IN LIFO RESERVE

FOR THE YEARS INDICATED BELOW

	2019	Actual Cost 2020	Projected 2021	Projected 2022	Projected 2023
LIFO Reserve at End of the Year	9,204,088	7,598,530	7,896,031	8,368,338	8,834,814
LIFO Reserve at Beginning of Year	8,836,408	9,204,088	7,598,530	7,896,031	8,368,338
Net Increase (Decrease) in LIFO Reserve	367,680	(1,605,558)	297,500	472,308	466,476

Analysis of Net Increase (Decrease) in LIFO Reserve	2019	Actual Cost 2020	Projected 2021	Projected 2022	Projected 2023
Increase in LIFO reserve due to inflation					
Cumulative index at end-of-year	1.328498	1.345105	1.361918	1.378942	1.396179
Cumulative index at beginning-of-year	(1.303510)	(1.328498)	(1.345105)	(1.361918)	(1.378942)
Difference - Effective rate of inflation	0.024988	0.016606	0.016814	0.017024	0.017237
Lower of beginning-of-year or end-of-year inventory expressed in base dollars	28,797,109	17,693,792	17,693,792	27,743,663	27,401,148
Increase in LIFO reserve due to inflation	719,590	293,827	297,500	472,308	472,308
Decrease due to payback (reduction in LIFO reserve) caused by the carry back of the decrement against prior years' layers (per schedule below)	(351,959) *	(1,899,399) †	0 **	0 ††	(5,832) ***
Rounding	49				
Net increase (decrease) in LIFO reserve at year-end	367,680	(1,605,572)	297,500	472,308	466,476

2019 L/R Payback Due to Decrement in Base Dollars

	Base Dollars		Amount Contributed to LIFO Reserve at Dec. 31, 2018		LIFO Reserve Recapture
December 31, 2013 Layer	2,977,125	x	0.10564	(1.30351 - 1.19787) =	314,505
December 31, 2014 Layer	56,248	x	0.08644	(1.30351 - 1.21707) =	4,862
December 31, 2016 Layer	1,113,883	x	0.02926	(1.30351 - 1.27425) =	32,592
December 31, 2018 Layer	8,548,339	x	0	(1.30351 - 1.30351) =	0
	12,695,595			Per Above	351,959 *
	(37)				
Per schedule	12,695,558				

2020 L/R Payback Due to Decrement in Base Dollars

			Amount Contributed to LIFO Reserve at Dec. 31, 2019		
December 31, 2012 Layer	10,367,983	x	0.173928	(1.328498 - 1.154570) =	1,803,284
December 31, 2013 Layer	735,297	x	0.130628	(1.328498 - 1.197870) =	96,052
	11,103,280			Per Above	1,899,336
	37				63
Per schedule	11,103,317				1,899,399 †

2021 There is no payback because the computations reflect an increment (and not a decrement)

2021 L/R Payback Due to Decrement in Base Dollars - Not Applicable

			Amount Contributed to LIFO Reserve at Dec. 31, 2020		
		x			
Per schedule	-			Per Above	- **

2022 L/R Payback Due to Decrement in Base Dollars

			Amount Contributed to LIFO Reserve at Dec. 31, 2021		
December 31, 2021 Layer	346,796	x	0.000000	(1.361918 - 1.361918) =	0
Per schedule	346,796			Per Above	0 ††

2023 L/R Payback Due to Decrement in Base Dollars

			Amount Contributed to LIFO Reserve at Dec. 31, 2022		
December 31, 2021 Layer	342,514	x	0.017024	(1.378942 - 1.361918) =	5,832
Per schedule	342,514			Per Above	5,832 ***

Note: All rounding dollar amounts are due to differences in the display of decimal calculations.

XYZ, Inc. - Projections 1(b) ... Using Actual Cost Dec. 31, 2020

Composition of LIFO Inventory Pool & Contribution Made by Each Layer to the LIFO Reserve

For the Years Indicated Below

Calendar Year 2020 Actual Inventory				***Composition & Proof of LIFO Reserve as of Dec. 31, 2020***		
	Base Dollars	***Valuation Factor***	***LIFO Valuation***	***Base Dollars***	***Proof Factor***	***Composition of LIFO Reserve***
Analysis of Year-End LIFO Inventory Layers						
Calendar Year 1985	2,279,795	0.517470	1,179,726	2,279,795	0.827635	1,886,838
Calendar Year 1992	917,975	0.649710	596,418	917,975	0.695395	638,355
Calendar Year 1994	527,962	0.708260	373,934	527,962	0.636845	336,230
Calendar Year 1995	466,372	0.737590	343,991	466,372	0.607515	283,328
Calendar Year 1996	48,996	0.752690	36,879	48,996	0.592415	29,026
Calendar Year 1997	525,898	0.775950	408,071	525,898	0.569155	299,317
Calendar Year 1999	2,257,479	0.830310	1,874,407	2,257,479	0.514795	1,162,139
Calendar Year 2000	151,649	1.016410	154,138	151,649	0.328695	49,846
Calendar Year 2001	1,033,581	0.850860	879,433	1,033,581	0.494245	510,842
Calendar Year 2002	1,354,753	0.880270	1,192,548	1,354,753	0.464835	629,737
Rebased as of 12/31/06	-	-	-	-	-	-
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.609094	5,825,659
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.225695	894,420
Calendar Year 2011	3,946,822	1.133130	4,472,262	3,946,822	0.211975	836,628
Calendar Year 2012	219,550	1.154571	253,486	219,550	0.190534	41,832
Cumulative Index as of Dec. 31, 2020		1.345105		-		-
			-			(8)
Totals	17,693,792		16,201,470	17,693,792		7,598,530
Ending Inventory at LIFO Valuation			16,201,470			
Less: Ending Inventory at Current Cost			23,800,000			
LIFO Reserve at End of Year - Dec. 31, 2020			7,598,530			

Calendar Year 2023 Actual Inventory - Projected				***Composition & Proof of LIFO Reserve as of Dec. 31, 2023***		
	Base Dollars	***Valuation Factor***	***LIFO Valuation***	***Base Dollars***	***Proof Factor***	***Composition of LIFO Reserve***
Analysis of Year-End LIFO Inventory Layers						
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.660168	6,314,154
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.276769	1,096,824
Calendar Year 2011	3,946,822	1.133130	4,472,262	3,946,822	0.263049	1,038,208
Calendar Year 2012	219,550	1.154571	253,486	219,550	0.241608	53,045
Calendar Year 2021	9,707,356	1.361918	13,220,627	9,707,356	0.034261	332,580
Cumulative Index as of Dec. 31, 2023		1.396179		-		-
			-			3
Totals	27,401,148		29,422,096	27,401,148		8,834,814
Ending Inventory at LIFO Valuation			29,422,096			
Less: Ending Inventory at Current Cost			38,256,910			
LIFO Reserve at End of Year - Dec. 31, 2023			8,834,814			

Note: All annual historical layers retain their individual status. The subtotal for "all prior years" simply shows the average rate, and this is reflected in the computational schedules to avoid repeating all of the individual detail by years. All rounding dollar amounts are due to differences in the display of decimal calculations.

XYZ, Inc. - 2(b)

2(b): Three-Year Projection of LIFO Inventories - Based on Substitute Inventory Amount for Dec. 31, 2020

For 2021 Ending Inventory Returns to 2019 (Pre-Liquidation) Actual Level & Remains at That Level in 2022 & 2023

	2018	2019	2020 Substitute Cost	2021	2022	2023
A. Beginning-of-year inventory at base date cost	32,944,328	41,492,667	28,797,109	33,373,170	28,090,458	27,743,663
B. End-of-year inventory at end-of-year (current) prices	54,086,107	38,256,910	44,890,402 *	38,256,910	38,256,910	38,256,910
C. End-of-year inventory at beginning of year (base prices)	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced
D. Current Year Price Index: End of year inventory priced at end-of-year prices (divided by) Ratio of: End of year inventory priced at beginning-of-year prices	1.014530	1.019170	1.012500	1.012500	1.012500	1.012500
E. Cumulative link-chain index: Current-year price index (Line D) multiplied by (x) Prior year's cumulative index (Line E of prior year)	1.303510	1.328498	1.345105	1.361918	1.378942	1.396179
F. End-of-year inventory at base date cost (Line B divided by Line E)	41,492,667	28,797,109	33,373,170	28,090,458	27,743,663	27,401,148
G. Current year inventory increase (decrease) - Expressed in base dollars						
1. End-of-year inventory at base date cost (Line F)	41,492,667	28,797,109	33,373,170	28,090,458	27,743,663	27,401,148
2. Beginning-of-year inventory at base date cost (Line A)	32,944,328	41,492,667	28,797,109	33,373,170	28,090,458	27,743,663
3. Current-year increment (G(1) exceeds G(2)) or decrease (if G(2) exceeds G(1))	8,548,339	(12,695,558)	4,576,061	(5,282,712)	(346,796)	(342,514)
	x 1.303510	x -	x 1.345105	x -	x -	x -
4. LIFO valuation of current-year increment (If G(1) exceeds G(2), multiply Line G(3) by Line E)	11,142,846	N/A	6,155,281	N/A	N/A	N/A

H. Analysis of Year-End Inventory LIFO "Layers"

Calendar Year 2018 - Based on Actual Cost

	Base Dollars		*Valuation Factor*	
Calendar Year 1985	2,279,795	x	0.517470	1,179,726
Calendar Year 1992	917,975	x	0.649710	596,418
Calendar Year 1994	527,962	x	0.708260	373,934
Calendar Year 1995	466,372	x	0.737590	343,991
Calendar Year 1996	48,996	x	0.752690	36,879
Calendar Year 1997	525,898	x	0.775950	408,071
Calendar Year 1999	2,257,479	x	0.830310	1,874,407
Calendar Year 2000	151,649	x	1.016410	154,138
Calendar Year 2001	1,033,581	x	0.850860	879,433
Calendar Year 2002	1,354,753	x	0.880270	1,192,548
Rebased as of 12/31/06	0	x	1.000000	-
** Subtotal - All Prior Years	9,564,460			7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	3,712,422	x	1.197870	4,446,999
Calendar Year 2014	56,248	x	1.217070	68,458
Calendar Year 2016	1,113,883	x	1.274250	1,419,365
Calendar Year 2018	8,548,339	x	1.303510	11,142,845
	41,492,667			45,249,699

Calendar Year 2019 - Based on Actual Cost

	Base Dollars		*Valuation Factor*	
** Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	735,297	x	1.197870	880,790
	28,797,072			29,052,822

Calendar Year 2020 - Substitute Cost

	Base Dollars		*Valuation Factor*	
** Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	735,297	x	1.197870	880,790
Calendar Year 2020	4,576,061	x	1.345105	6,155,280
	33,373,133			35,208,102

Calendar Year 2021 - Substitute Cost

	Base Dollars		*Valuation Factor*	
** Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	28,683	x	1.197870	34,359
Calendar Year 2020		x		-
	28,090,458			28,206,390

Calendar Year 2022 - Substitute Cost

	Base Dollars		*Valuation Factor*	
** Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,269,421	x	1.154570	11,856,765
Calendar Year 2013		x		-
Calendar Year 2020		x		-
	27,743,663			27,804,749

Calendar Year 2023 - Substitute Cost

	Base Dollars		*Valuation Factor*	
** Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	9,926,906	x	1.154570	11,461,308
Calendar Year 2013		x		-
Calendar Year 2020		x		-
	27,401,148			27,409,292

	2018	2019	2020 Substitute Cost	2021	2022	2023	
Ending Inventory at LIFO Valuation, per Above	45,249,699	29,052,822	35,208,102	28,206,390	27,804,749	27,409,292	
Less: Ending Inventory at End-of-Year Prices (Line B)	54,086,107	38,256,910	44,890,402	38,256,910	38,256,910	38,256,910	
LIFO Reserve at End of the Year	8,836,408	9,204,088	9,682,300	10,050,520	10,452,161	10,847,618	
LIFO Reserve at Beginning of Year	8,221,336	8,836,408	9,204,088	9,682,300	10,050,520	10,452,161	
Net Increase (Decrease) in LIFO Reserve	615,072	367,680	478,212	368,220	401,641	395,458	
Net Change Over 4 Years			478,212	368,220	401,641	395,458	1,643,531 Net Change

† The calculations for 2020 reflect the 3-year historical average of ending inventory costs (Dec. 31, 2017 - 2019) - substitute cost replaces actual cost - as of Dec. 31, 2020.

* Actual cost of Dec. 31, 2020 inventory is $23,800,000. This is $21,090,402 less than the substitute cost ($44,890,402).

** The subtotal for all prior years 1985 through calendar year 2009.

Note: See accompanying schedules for proofs and reconciliations of (1) composition of the layers in the LIFO Reserve balances as of year-end and (2) components of the changes in the LIFO Reserve for the years indicated above.

XYZ, INC. - PROJECTIONS 2(b) ... USING SUBSTITUTE COST AT DEC. 31, 2020

SUMMARY OF LIFO RESERVE BALANCES & ANALYSES OF NET INCREASE (DECREASE) IN LIFO RESERVE

FOR THE YEARS INDICATED BELOW

	2019	Substitute Cost 2020	Projected 2021	Projected 2022	Projected 2023
LIFO Reserve at End of the Year	9,204,088	9,682,300	10,050,520	10,452,161	10,847,618
LIFO Reserve at Beginning of Year	8,836,408	9,204,088	9,682,300	10,050,520	10,452,161
Net Increase (Decrease) in LIFO Reserve	367,680	478,212	368,220	401,641	395,458

Analysis of Net Increase (Decrease) in LIFO Reserve	2019	Substitute Cost 2020	Projected 2021	Projected 2022	Projected 2023
Increase in LIFO reserve due to inflation					
Cumulative index at end-of-year	1.328498	1.345105	1.361918	1.378942	1.396179
Cumulative index at beginning-of-year	(1.303510)	(1.328498)	(1.345105)	(1.361918)	(1.378942)
Difference - Effective rate of inflation	0.024988	0.016606	0.016814	0.017024	0.017237
Lower of beginning-of-year or end-of-year inventory expressed in base dollars	28,797,109	28,797,109	28,090,458	27,743,663	27,401,148
Increase in LIFO reserve due to inflation	719,590	478,212	472,308	472,308	472,308
Decrease due to payback (reduction in LIFO reserve) caused by the carry back of the decrement against prior years' layers (per schedule below)	(351,959) *	0 †	(104,088) **	(70,666) ††	(76,850) ***
Rounding	49				
Net increase (decrease) in LIFO reserve at year-end	367,680	478,212	368,220	401,641	395,458

2019 L/R Payback Due to Decrement in Base Dollars

	Base Dollars		Amount Contributed to LIFO Reserve at Dec. 31, 2018		LIFO Reserve Recapture
December 31, 2013 Layer	2,977,125	x	0.10564	(1.30351 - 1.19787) =	314,505
December 31, 2014 Layer	56,248	x	0.08644	(1.30351 - 1.21707) =	4,862
December 31, 2016 Layer	1,113,883	x	0.02926	(1.30351 - 1.27425) =	32,592
December 31, 2018 Layer	8,548,339	x	0	(1.30351 - 1.30351) =	0
	12,695,595			Per Above	351,959 *
	(37)				
Per schedule	12,695,558				

2020 There is no payback because the computations reflect an increment (and not a decrement)

2020 L/R Payback Due to Decrement in Base Dollars - Not Applicable

			Amount Contributed to LIFO Reserve at Dec. 31, 2019		
		x			
Per schedule	-			Per Above	- †

2021 L/R Payback Due to Decrement in Base Dollars

			Amount Contributed to LIFO Reserve at Dec. 31, 2020		
December 31, 2013 Layer	706,651	x	0.147235	(1.345105 - 1.197870) =	104,044
December 31, 2020 Layer	4,576,061	x	0	(1.345105 - 1.345105) =	0
	5,282,712				104,044
	-				44
Per schedule	5,282,712			Per Above	104,088 **

2022 L/R Payback Due to Decrement in Base Dollars

			Amount Contributed to LIFO Reserve at Dec. 31, 2021		
December 31, 2012 Layer	318,113	x	0.207348	(1.361918 - 1.154570) =	65,961
December 31, 2013 Layer	28,683	x	0.164048	(1.361918 - 1.197870) =	4,705
	346,796			Per Above	70,666
	-				-
Per schedule	346,796				70,666 ††

2023 L/R Payback Due to Decrement in Base Dollars

			Amount Contributed to LIFO Reserve at Dec. 31, 2022		
December 31, 2012 Layer	342,514	x	0.224372	(1.378942 - 1.154570) =	76,850
Per schedule	342,514			Per Above	76,850 ***

Note: All rounding dollar amounts are due to differences in the display of decimal calculations.

XYZ, Inc. - Projections 2(b) ... Using Substitute Cost Dec. 31, 2020

Composition of LIFO Inventory Pool & Contribution Made by Each Layer to the LIFO Reserve

For the Years Indicated Below

Calendar Year 2020 Substitute Inventory Cost
(Average 2017, 2018 & 2019)

	Base Dollars	*Valuation Factor*	*LIFO Valuation*	*Composition & Proof of LIFO Reserve as of Dec. 31, 2020 - Substitute Cost* Base Dollars	Proof Factor	Composition of LIFO Reserve
Analysis of Year-End LIFO Inventory Layers						
Calendar Year 1985	2,279,795	0.517470	1,179,726	2,279,795	0.827635	1,886,838
Calendar Year 1992	917,975	0.649710	596,418	917,975	0.695395	638,355
Calendar Year 1994	527,962	0.708260	373,934	527,962	0.636845	336,230
Calendar Year 1995	466,372	0.737590	343,991	466,372	0.607515	283,328
Calendar Year 1996	48,996	0.752690	36,879	48,996	0.592415	29,026
Calendar Year 1997	525,898	0.775950	408,071	525,898	0.569155	299,317
Calendar Year 1999	2,257,479	0.830310	1,874,407	2,257,479	0.514795	1,162,139
Calendar Year 2000	151,649	1.016410	154,138	151,649	0.328695	49,846
Calendar Year 2001	1,033,581	0.850860	879,433	1,033,581	0.494245	510,842
Calendar Year 2002	1,354,753	0.880270	1,192,548	1,354,753	0.464835	629,737
Rebased as of 12/31/06	-	-	-	-	-	-
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.609094	5,825,659
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.225695	894,420
Calendar Year 2011	3,946,822	1.133130	4,472,262	3,946,822	0.211975	836,628
Calendar Year 2012	10,587,533	1.154570	12,224,048	10,587,533	0.190535	2,017,296
Calendar Year 2013	735,297	1.197870	880,790	735,297	0.147235	108,262
Calendar Year 2020	4,576,061	1.345105	6,155,280	4,576,061	(0.000000)	-
Cumulative Index as of Dec. 31, 2020		1.345105		-	-	-
			-			36
Totals	33,373,133		35,208,102	33,373,133		9,682,300
Ending Inventory at LIFO Valuation			35,208,102			
Less: Ending Inventory at Current Cost			44,890,402			
LIFO Reserve at End of Year - Dec. 31, 2020			9,682,300			

Calendar Year 2023 Substitute Inventory - Projected

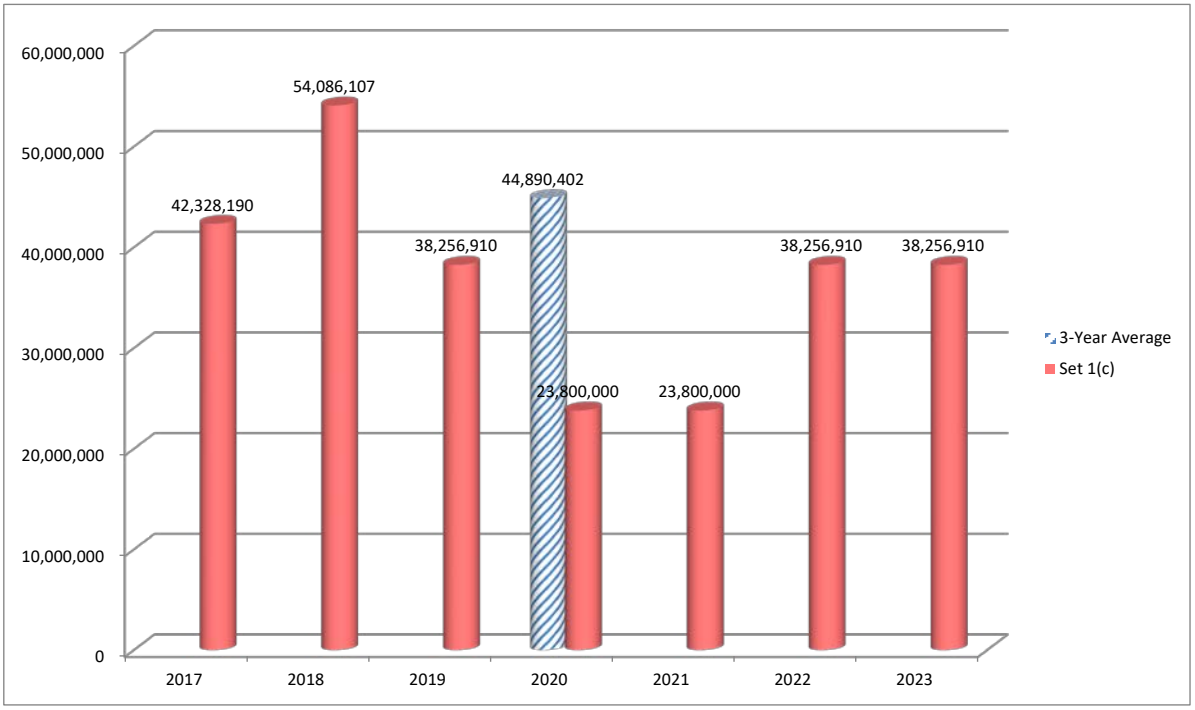
	Base Dollars	*Valuation Factor*	*LIFO Valuation*	*Composition & Proof of LIFO Reserve as of Dec. 31, 2023* Base Dollars	Proof Factor	Composition of LIFO Reserve
Analysis of Year-End LIFO Inventory Layers						
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.660168	6,314,154
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.276769	1,096,824
Calendar Year 2011	3,946,822	1.133130	4,472,262	3,946,822	0.263049	1,038,208
Calendar Year 2012	9,926,906	1.154570	11,461,308	9,926,906	0.241609	2,398,430
Cumulative Index as of Dec. 31, 2023		1.396179		-		-
			-			3
Totals	27,401,148		27,409,291	27,401,148		10,847,619
Ending Inventory at LIFO Valuation			27,409,291			
Less: Ending Inventory at Current Cost			38,256,910			
LIFO Reserve at End of Year - Dec. 31, 2023			10,847,619			

Note: All annual historical layers retain their individual status. The subtotal for "all prior years" simply shows the average rate, and this is reflected in the computational schedules to avoid repeating all of the individual detail by years. All rounding dollar amounts are due to differences in the display of decimal calculations.

Facts & Summary of Results for Case Study Sets 1(c) & 2(c)

The Taxpayer's Inventory Remains Low for 1 More Year; Then It Returns to the Pre-Liquidation Level at the End of the Second Year

Actual (Historical) Cost Dec. 31, 2017 - 2020 | **Projected 3-Year Recovery Period**



	2017	2018	2019	2020	2021	2022	2023
3-Year Average				44,890,402			
Set 1(c)	42,328,190	54,086,107	38,256,910	23,800,000	23,800,000	38,256,910	38,256,910

Sets 1(c) & 2(c) … For 2021 ending inventory remains at 2020 actual liquidation level ($23,800,000) & the inventory increases to the pre-liquidation level ($38,256,910) in 2022 and the inventory stays at that level in 2023. In other words, it takes 2 years (2021 & 2022) for the inventory level to return to the pre-liquidation level. Accordingly, by the end of the second year of the recovery period (Dec. 31, 2022), the taxpayer's inventory level has returned to the pre-liquidation level and the recovery period ends at that time.

Summary of Results for Case Study Sets 1(c) & 2(c)

1. The impact of the decrement in the amount of $1,899,336 in 2020 (if actual cost is used) is increased by $41,620 in 2021 for a total decrement impact of $1,941,019. If the historical substitute cost method is used, the decrement is shifted in 2021 and becomes $2,125,390. The net amount of the difference in the decrement carryback impact is $184,371. This is in contrast to the impact of the decrement that would have been felt in 2020 ($1,899,399) if the actual cost method had been used that year.
2. Technically, the recovery period is 2 years ending Dec. 31, 2022. If the LIFO reserve balances under the different methods were adjusted as of that date (Dec. 31, 2022), the LIFO reserve adjustment would be a decrease of $1,055,851 (from $9,204,088 at Dec. 31, 2019 to $8,148,237 at Dec. 31, 2022). The net decrease in the LIFO reserve for the 3-year period as of Dec. 31, 2022 would reflect three years' inflation in the amount of $1,069,539 ($478,212 for 2020, $293,827 for 2021 and $297,499 for 2022). This adjustment would be offset by a reduction of $2,125,390 for the payback in the LIFO reserve due to the decrement. This net adjustment of $1,055,851 would bring the LIFO reserve at Dec. 31, 2022 down to $8,148,236.

   The effect of the "relief" penalizes the taxpayer for having built up its inventory at the end of the second year because the taxpayer is not allowed to get the benefit of inflation experienced during the third year (2023) if the adjustment were made at the end of the 3-year recovery period.
3. *Alternatively*, it may be desirable to postpone the taxpayer's adjustment for relief until the end of 2023 (i.e., until the end of the 3-year recovery period, even though, technically, the recovery period was shortened to the end of 2022 because at that time, the inventory was restored to the pre-liquidation level). This approach may be more desirable for equitable purposes or more logically consistent with adjustments that would be made under the other case study scenarios.
4. If the alternative (#3 above) of postponing the adjustment for relief until 2023 is followed, then the amount of the LIFO reserve at Dec. 31, 2019/Jan. 1, 2020 ($9,204,088) would be decreased by $583,544 to $8,620,544 as of Dec. 31, 2023.
5. At the end of 2023, the taxpayer does realize a payback (or reduction) of a portion of its LIFO reserve because its inventory level has not grown beyond the pre-liquidation level. However, adjustment at that time (i.e., a reduction of $583,544) has (1) delayed until 2023 the impact that would have been felt a few years sooner and (2) reduced the amount of the adjustment because it includes the impact of inflation reflected in that inventory throughout the years.
6. As of Dec. 31, 2023, the LIFO layer histories are identical regardless of whether they are computed under the substitute cost calculation method or the actual cost method. They reflect base dollars of $27,401,148 valued at $29,636,366, and the LIFO reserve at that date under either method is $8,620,544 ($38,256,910 - $29,636,366).
7. For 2024 and subsequent years' LIFO calculations, the taxpayer would continue to use this LIFO layer history as calculated under the 3-year average substitute cost method.

Sets 1(c) & 2(c) - Analysis of Differences in LIFO Reserve Changes by Year

Fact Pattern

1(c) … For 2021 ending inventory remains at 2020 actual liquidation level ($23,800,000) & the inventory increases to the pre-liquidation level ($38,256,910) in 2022 and the inventory stays at that level in 2023. In other words, it takes 2 years (2021 & 2022) for the inventory level to return to the pre-liquidation level. Accordingly, by the end of the second year of the recovery period (Dec. 31, 2022), the taxpayer's inventory level has returned to the pre-liquidation level and the recovery period ends at that time.

	2020	2021	2022	Total	2023	Total
2(c) Substitute Level						
Due to Inflation	478,212	293,827	297,499	1,069,539	472,308	1,541,846
Due to Decrement Carryback	0	(2,125,390)	0	(2,125,390)	0	(2,125,390)
Rounding				0		0
Net Change in LIFO Reserve	478,212	(1,831,563)	297,499	(1,055,851)	472,308	(583,544)
1(c) Actual Inventory Level						
Due to Inflation	293,827	293,827	297,500	885,154	472,307	1,357,461
Due to Decrement Carryback	(1,899,399)	(41,620)	0	(1,941,019)	0	(1,941,019)
Rounding				0		0
Net Change in LIFO Reserve	(1,605,572)	252,207	297,500	(1,055,864)	472,307	(583,558)
	2,083,784	(2,083,770)	(1)	13	1	14

	1(c)	*2(c)*	*Difference*	*Inflation*	*L/R Payback*
Dec. 31, 2019 LIFO Reserve	9,204,088	9,204,088	0		
2020 LIFO Reserve Change					
Due to Inflation	293,827	478,212	184,385	184,385	
Due to Decrement Carryback	(1,899,399)	0	1,899,399		1,899,399
Rounding			0		
Net Change in LIFO Reserve	(1,605,572)	478,212	2,083,784		
2021 LIFO Reserve Change					
Due to Inflation	293,827	293,827	0	0	
Due to Decrement Carryback	(41,620)	(2,125,390)	(2,083,770)		(2,083,770)
Rounding			0		
Net Change in LIFO Reserve	252,207	(1,831,563)	(2,083,770)		
2022 L/R Change Due to Inflation	297,500	297,499	(1)	(1)	
2023 L/R Change Due to Inflation	472,307	472,308	1		
Subtotal	(583,558)	(583,544)	14		
Additional Inflation - Per 2(c)	184,384	-	-	184,384	
Less LIFO Reserve Payback - Per 2(c)	(184,371)	-	-		(184,371)
Rounding	1		(14)		
Dec. 31, 2022 LIFO Reserve	8,620,544	8,620,544			
			(0)		
Dec. 31, 2022 LIFO Reserve	8,620,544				
Dec. 31, 2019 LIFO Reserve	(9,204,088)				
Net Adjustment	(583,544)				

XYZ, Inc. - 1(c)

1(c): Three-Year Projection of LIFO Inventories - Based on Actual Inventory Amount for Dec. 31, 2020

For 2021 Ending Inventory Remains at 2020 Actual Liquidation Level & Increases to Pre-Liquidation Level in 2022 & 2023

	2018	2019	2020	2021	2022	2023
A. Beginning-of-year inventory at base date cost	32,944,328	41,492,667	28,797,109	17,693,792	17,475,350	27,743,663
B. End-of-year inventory at end-of-year (current) prices	54,086,107	38,256,910 *	23,800,000 **	23,800,000 **	38,256,910 *	38,256,910 *
C. End-of-year inventory at beginning of year (base prices)	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced
D. Current Year Price Index: End of year inventory priced at end-of-year prices (divided by) Ratio of: ---------- End of year inventory priced at beginning-of-year prices	1.014530	1.019170	1.012500	1.012500	1.012500	1.012500
E. Cumulative link-chain index: Current-year price index (Line D) multiplied by (x) Prior year's cumulative index (Line E of prior year)	1.303510	1.328498	1.345105	1.361918	1.378942	1.396179
F. End-of-year inventory at base date cost (Line B divided by Line E)	41,492,667	28,797,109	17,693,792	17,475,350	27,743,663	27,401,148
G. Current year inventory increase (decrease) - Expressed in base dollars						
1. End-of-year inventory at base date cost (Line F)	41,492,667	28,797,109	17,693,792	17,475,350	27,743,663	27,401,148
2. Beginning-of-year inventory at base date cost (Line A)	32,944,328	41,492,667	28,797,109	17,693,792	17,475,350	27,743,663
3. Current-year increment (G(1) exceeds G(2)) or decrease (if G(2) exceeds G(1))	8,548,339	(12,695,558)	(11,103,317)	(218,442)	10,268,312	(342,514)
	x 1.303510	x -	x -	-	x 1.378942	x -
4. LIFO valuation of current-year increment (If G(1) exceeds G(2), multiply Line G(3) by Line E)	11,142,846	N/A	N/A	N/A	14,159,410	N/A

H. Analysis of Year-End Inventory LIFO "Layers"

Calendar Year 2018

	Base Dollars		*Valuation Factor*	
Calendar Year 1985	2,279,795	x	0.517470	1,179,726
Calendar Year 1992	917,975	x	0.649710	596,418
Calendar Year 1994	527,962	x	0.708260	373,934
Calendar Year 1995	466,372	x	0.737590	343,991
Calendar Year 1996	48,996	x	0.752690	36,879
Calendar Year 1997	525,898	x	0.775950	408,071
Calendar Year 1999	2,257,479	x	0.830310	1,874,407
Calendar Year 2000	151,649	x	1.016410	154,138
Calendar Year 2001	1,033,581	x	0.850860	879,433
Calendar Year 2002	1,354,753	x	0.880270	1,192,548
Rebased as of 12/31/06	0	x	1.000000	-
* Subtotal - All Prior Years	9,564,460			7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	3,712,422	x	1.197870	4,446,999
Calendar Year 2014	56,248	x	1.217070	68,458
Calendar Year 2016	1,113,883	x	1.274250	1,419,365
Calendar Year 2018	8,548,339	x	1.303510	11,142,845
	41,492,667			45,249,699

Calendar Year 2019

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	735,297	x	1.197870	880,790
	28,797,072			29,052,822

Calendar Year 2020

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	219,550	x	1.154570	253,486
	17,693,792			16,201,470

Calendar Year 2021

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	1,108	x	1.154570	1,279
	17,475,350			15,949,263

Calendar Year 2022

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	1,108	x	1.154570	1,279
Calendar Year 2022	10,268,312	x	1.378942	14,159,410
	27,743,662			30,108,673

Calendar Year 2023

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	1,108	x	1.154570	1,279
Calendar Year 2022	9,925,798	x	1.378942	13,687,103
	27,401,148			29,636,366

	2018	2019	2020	2021	2022	2023	
Ending Inventory at LIFO Valuation, per Above	45,249,699	29,052,822	16,201,470	15,949,263	30,108,673	29,636,366	
Less: Ending Inventory at End-of-Year Prices (Line B)	54,086,107	38,256,910	23,800,000	23,800,000	38,256,910	38,256,910	
LIFO Reserve at End of the Year	8,836,408	9,204,088	7,598,530	7,850,737	8,148,237	8,620,544	
LIFO Reserve at Beginning of Year	8,221,336	8,836,408	9,204,088	7,598,530	7,850,737	8,148,237	
Net Increase (Decrease) in LIFO Reserve	615,072	367,680	(1,605,558)	252,207	297,500	472,307	
Net Change Over 4 Years			(1,605,558)	252,207	297,500	472,307	(583,544) Net Change

† The calculations for 2020 reflect the actual ending inventory as of Dec. 31, 2020

Note: See accompanying schedules for proofs and reconciliations of (1) composition of the layers in the LIFO Reserve balances as of year-end and (2) components of the changes in the LIFO Reserve for the years indicated above.

XYZ, INC. - PROJECTIONS 1(c) ... USING ACTUAL COST AT DEC. 31, 2020

SUMMARY OF LIFO RESERVE BALANCES & ANALYSES OF NET INCREASE (DECREASE) IN LIFO RESERVE

FOR THE YEARS INDICATED BELOW

	2019	Actual Cost 2020	Projected 2021	Projected 2022	Projected 2023
LIFO Reserve at End of the Year	9,204,088	7,598,530	7,850,737	8,148,237	8,620,544
LIFO Reserve at Beginning of Year	8,836,408	9,204,088	7,598,530	7,850,737	8,148,237
Net Increase (Decrease) in LIFO Reserve	367,680	(1,605,558)	252,207	297,500	472,307

Analysis of Net Increase (Decrease) in LIFO Reserve	2019	Actual Cost 2020	Projected 2021	Projected 2022	Projected 2023
Increase in LIFO reserve due to inflation					
Cumulative index at end-of-year	1.328498	1.345105	1.361918	1.378942	1.396179
Cumulative index at beginning-of-year	(1.303510)	(1.328498)	(1.345105)	(1.361918)	(1.378942)
Difference - Effective rate of inflation	0.024988	0.016606	0.016814	0.017024	0.017237
Lower of beginning-of-year or end-of-year inventory expressed in base dollars	28,797,109	17,693,792	17,475,350	17,475,350	27,401,148
Increase in LIFO reserve due to inflation	719,590	293,827	293,827	297,500	472,307
Decrease due to payback (reduction in LIFO reserve) caused by the carry back of the decrement against prior years' layers (per schedule below)	(351,959) *	(1,899,399) †	(41,620) **	0 ††	0 ***
Rounding	49				
Net increase (decrease) in LIFO reserve at year-end	367,680	(1,605,572)	252,207	297,500	472,307

2019 L/R Payback Due to Decrement in Base Dollars

	Base Dollars		*Amount Contributed to LIFO Reserve at Dec. 31, 2018*		*LIFO Reserve Recapture*
December 31, 2013 Layer	2,977,125	x	0.10564	(1.30351 - 1.19787) =	314,505
December 31, 2014 Layer	56,248	x	0.08644	(1.30351 - 1.21707) =	4,862
December 31, 2016 Layer	1,113,883	x	0.02926	(1.30351 - 1.27425) =	32,592
December 31, 2018 Layer	8,548,339	x	0	(1.30351 - 1.30351) =	0
	12,695,595			Per Above	351,959 *
	(37)				
Per schedule	12,695,558				

2020 L/R Payback Due to Decrement in Base Dollars

			Amount Contributed to LIFO Reserve at Dec. 31, 2019		
December 31, 2012 Layer	10,367,983	x	0.173928	(1.328498 - 1.154570) =	1,803,284
December 31, 2013 Layer	735,297	x	0.130628	(1.328498 - 1.197870) =	96,052
	11,103,280			Per Above	1,899,336
	37				63
Per schedule	11,103,317				1,899,399 †

2021 L/R Payback Due to Decrement in Base Dollars

			Amount Contributed to LIFO Reserve at Dec. 31, 2020		
December 31, 2020 Layer	218,442	x	0.190535	(1.345105 - 1.154570) =	41,620
Per schedule	218,442			Per Above	41,620 **

2022 There is no payback because the computations reflect an increment (and not a decrement)

2022 L/R Payback Due to Decrement in Base Dollars - Not Applicable

			Amount Contributed to LIFO Reserve at Dec. 31, 2021		
		x			
Per schedule	-			Per Above	- ††

2023 L/R Payback Due to Decrement in Base Dollars

			Amount Contributed to LIFO Reserve at Dec. 31, 2022		
December 31, 2022 Layer	342,514	x	0.000000	(1.378942 - 1.378942) =	0
Per schedule	342,514			Per Above	0 ***

Note: All rounding dollar amounts are due to differences in the display of decimal calculations.

XYZ, Inc. - Projections 1(c) ... Using Actual Cost Dec. 31, 2020

Composition of LIFO Inventory Pool & Contribution Made by Each Layer to the LIFO Reserve

For the Years Indicated Below

Calendar Year 2020 Actual Inventory				***Composition & Proof of LIFO Reserve as of Dec. 31, 2020***		
	Base Dollars	***Valuation Factor***	***LIFO Valuation***	***Base Dollars***	***Proof Factor***	***Composition of LIFO Reserve***
Analysis of Year-End LIFO Inventory Layers						
Calendar Year 1985	2,279,795	0.517470	1,179,726	2,279,795	0.827635	1,886,838
Calendar Year 1992	917,975	0.649710	596,418	917,975	0.695395	638,355
Calendar Year 1994	527,962	0.708260	373,934	527,962	0.636845	336,230
Calendar Year 1995	466,372	0.737590	343,991	466,372	0.607515	283,328
Calendar Year 1996	48,996	0.752690	36,879	48,996	0.592415	29,026
Calendar Year 1997	525,898	0.775950	408,071	525,898	0.569155	299,317
Calendar Year 1999	2,257,479	0.830310	1,874,407	2,257,479	0.514795	1,162,139
Calendar Year 2000	151,649	1.016410	154,138	151,649	0.328695	49,846
Calendar Year 2001	1,033,581	0.850860	879,433	1,033,581	0.494245	510,842
Calendar Year 2002	1,354,753	0.880270	1,192,548	1,354,753	0.464835	629,737
Rebased as of 12/31/06	-	-	-	-	-	-
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.609094	5,825,659
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.225695	894,420
Calendar Year 2011	3,946,822	1.133130	4,472,262	3,946,822	0.211975	836,628
Calendar Year 2012	219,550	1.154571	253,486	219,550	0.190534	41,832
Cumulative Index as of Dec. 31, 2020		1.345105		-		-
			-			(8)
Totals	17,693,792		16,201,470	17,693,792		7,598,530
Ending Inventory at LIFO Valuation			16,201,470			
Less: Ending Inventory at Current Cost			23,800,000			
LIFO Reserve at End of Year - Dec. 31, 2020			7,598,530			

Calendar Year 2023 Actual Inventory - Projected				***Composition & Proof of LIFO Reserve as of Dec. 31, 2023***		
	Base Dollars	***Valuation Factor***	***LIFO Valuation***	***Base Dollars***	***Proof Factor***	***Composition of LIFO Reserve***
Analysis of Year-End LIFO Inventory Layers						
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.660168	6,314,154
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.276769	1,096,824
Calendar Year 2011	3,946,822	1.133130	4,472,262	3,946,822	0.263049	1,038,208
Calendar Year 2012	1,108	1.154332	1,279	1,108	0.241847	268
Calendar Year 2022	9,925,798	1.378942	13,687,103	9,925,798	0.017237	171,088
Cumulative Index as of Dec. 31, 2023		1.396179		-		-
			1			2
Totals	27,401,148		29,636,366	27,401,148		8,620,544
Ending Inventory at LIFO Valuation			29,636,366			
Less: Ending Inventory at Current Cost			38,256,910			
LIFO Reserve at End of Year - Dec. 31, 2023			8,620,544			

Note: All annual historical layers retain their individual status. The subtotal for "all prior years" simply shows the average rate, and this is reflected in the computational schedules to avoid repeating all of the individual detail by years. All rounding dollar amounts are due to differences in the display of decimal calculations.

XYZ, Inc. - 2(c)

2(c): Three-Year Projection of LIFO Inventories - Based on Substitute Inventory Amount for Dec. 31, 2020
For 2021 Ending Inventory Remains at 2020 Actual Liquidation Level & Increases to Pre-Liquidation Level in 2022 & 2023

	2018	2019	2020 Substitute Cost	2021	2022	2023
A. Beginning-of-year inventory at base date cost	32,944,328	41,492,667	28,797,109	33,373,170	17,475,350	27,743,663
B. End-of-year inventory at end-of-year (current) prices	54,086,107	38,256,910	44,890,402	23,800,000 *	38,256,910	38,256,910
C. End-of-year inventory at beginning of year (base prices)	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced
D. Current Year Price Index:						
End of year inventory priced at end-of-year prices (divided by)						
Ratio of: ----------	1.014530	1.019170	1.012500	1.012500	1.012500	1.012500
End of year inventory priced at beginning-of-year prices						
E. Cumulative link-chain index:						
Current-year price index (Line D) multiplied by (x)						
Prior year's cumulative index (Line E of prior year)	1.303510	1.328498	1.345105	1.361918	1.378942	1.396179
F. End-of-year inventory at base date cost (Line B divided by Line E)	41,492,667	28,797,109	33,373,170	17,475,350	27,743,663	27,401,148
G. Current year inventory increase (decrease) - Expressed in base dollars						
1. End-of-year inventory at base date cost (Line F)	41,492,667	28,797,109	33,373,170	17,475,350	27,743,663	27,401,148
2. Beginning-of-year inventory at base date cost (Line A)	32,944,328	41,492,667	28,797,109	33,373,170	17,475,350	27,743,663
3. Current-year increment (G(1) exceeds G(2)) or decrease (if G(2) exceeds G(1))	8,548,339	(12,695,558)	4,576,061	(15,897,820)	10,268,312	(342,514)
	x 1.303510	x -	x 1.345105	-	x 1.378942	x -
4. LIFO valuation of current-year increment (If G(1) exceeds G(2), multiply Line G(3) by Line E)	11,142,846	N/A	6,155,281	N/A	14,159,410	N/A

H. Analysis of Year-End Inventory LIFO "Layers"

Calendar Year 2018 - Based on Actual Cost

	Base Dollars		*Valuation Factor*	
Calendar Year 1985	2,279,795	x	0.517470	1,179,726
Calendar Year 1992	917,975	x	0.649710	596,418
Calendar Year 1994	527,962	x	0.708260	373,934
Calendar Year 1995	466,372	x	0.737590	343,991
Calendar Year 1996	48,996	x	0.752690	36,879
Calendar Year 1997	525,898	x	0.775950	408,071
Calendar Year 1999	2,257,479	x	0.830310	1,874,407
Calendar Year 2000	151,649	x	1.016410	154,138
Calendar Year 2001	1,033,581	x	0.850860	879,433
Calendar Year 2002	1,354,753	x	0.880270	1,192,548
Rebased as of 12/31/06	0	x	1.000000	-
** Subtotal - All Prior Years	9,564,460			7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	3,712,422	x	1.197870	4,446,999
Calendar Year 2014	56,248	x	1.217070	68,458
Calendar Year 2016	1,113,883	x	1.274250	1,419,365
Calendar Year 2018	8,548,339	x	1.303510	11,142,845
	41,492,667			45,249,699

Calendar Year 2019 - Based on Actual Cost

	Base Dollars		*Valuation Factor*	
** Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	735,297	x	1.197870	880,790
	28,797,072			29,052,822

Calendar Year 2020 - Substitute Cost

	Base Dollars		*Valuation Factor*	
** Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	735,297	x	1.197870	880,790
Calendar Year 2020	4,576,061	x	1.345105	6,155,280
	33,373,133			35,208,102

Calendar Year 2021 - Substitute Cost

	Base Dollars		*Valuation Factor*	
** Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	1,108	x	1.154570	1,279
Calendar Year 2013		x		-
Calendar Year 2020		x		-
	17,475,350			15,949,263

Calendar Year 2022 - Substitute Cost

	Base Dollars		*Valuation Factor*	
** Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	1,108	x	1.154570	1,279
Calendar Year 2013		x		-
Calendar Year 2020		x		-
Calendar Year 2020	10,268,313	x	1.378942	14,159,411
	27,743,663			30,108,674

Calendar Year 2023 - Substitute Cost

	Base Dollars		*Valuation Factor*	
** Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	1,108	x	1.154570	1,279
Calendar Year 2013		x		-
Calendar Year 2020		x		-
Calendar Year 2020	9,925,798	x	1.378942	13,687,103
	27,401,148			29,636,366

	2018	2019	2020 Substitute Cost	2021	2022	2023	
Ending Inventory at LIFO Valuation, per Above	45,249,699	29,052,822	35,208,102	15,949,263	30,108,674	29,636,366	
Less: Ending Inventory at End-of-Year Prices (Line B)	54,086,107	38,256,910	44,890,402	23,800,000	38,256,910	38,256,910	
LIFO Reserve at End of the Year	8,836,408	9,204,088	9,682,300	7,850,737	8,148,236	8,620,544	
LIFO Reserve at Beginning of Year	8,221,336	8,836,408	9,204,088	9,682,300	7,850,737	8,148,236	
Net Increase (Decrease) in LIFO Reserve	615,072	367,680	478,212	(1,831,563)	297,499	472,308	
Net Change Over 4 Years			478,212	(1,831,563)	297,499	472,308	(583,544) Net Change

† The calculations for 2020 reflect the 3-year historical average of ending inventory costs (Dec. 31, 2017 - 2019) - substitute cost replaces actual cost - as of Dec. 31, 2020.

* Actual cost of Dec. 31, 2020 inventory is $23,800,000. This is $21,090,402 less than the substitute cost ($44,890,402).

** The subtotal for all prior years 1985 through calendar year 2009.

Note: See accompanying schedules for proofs and reconciliations of (1) composition of the layers in the LIFO Reserve balances as of year-end and (2) components of the changes in the LIFO Reserve for the years indicated above.

XYZ, INC. - PROJECTIONS 2(c) ... USING SUBSTITUTE COST AT DEC. 31, 2020

SUMMARY OF LIFO RESERVE BALANCES & ANALYSES OF NET INCREASE (DECREASE) IN LIFO RESERVE

FOR THE YEARS INDICATED BELOW

	2019	Substitute Cost 2020	Projected 2021	Projected 2022	Projected 2023
LIFO Reserve at End of the Year	9,204,088	9,682,300	7,850,737	8,148,236	8,620,544
LIFO Reserve at Beginning of Year	8,836,408	9,204,088	9,682,300	7,850,737	8,148,236
Net Increase (Decrease) in LIFO Reserve	367,680	478,212	(1,831,563)	297,499	472,308

Analysis of Net Increase (Decrease) in LIFO Reserve	2019	Substitute Cost 2020	Projected 2021	Projected 2022	Projected 2023
Increase in LIFO reserve due to inflation					
Cumulative index at end-of-year	1.328498	1.345105	1.361918	1.378942	1.396179
Cumulative index at beginning-of-year	(1.303510)	(1.328498)	(1.345105)	(1.361918)	(1.378942)
Difference - Effective rate of inflation	0.024988	0.016606	0.016814	0.017024	0.017237
Lower of beginning-of-year or end-of-year inventory expressed in base dollars	28,797,109	28,797,109	17,475,350	17,475,350	27,401,148
Increase in LIFO reserve due to inflation	719,590	478,212	293,827	297,499	472,308
Decrease due to payback (reduction in LIFO reserve) caused by the carry back of the decrement against prior years' layers (per schedule below)	(351,959) *	0 †	(2,125,390) **	0 ††	0 ***
Rounding	49				
Net increase (decrease) in LIFO reserve at year-end	367,680	478,212	(1,831,563)	297,499	472,308

2019 L/R Payback Due to Decrement in Base Dollars

	Base Dollars		*Amount Contributed to LIFO Reserve at Dec. 31, 2018*		*LIFO Reserve Recapture*
December 31, 2013 Layer	2,977,125	x	0.10564	(1.30351 - 1.19787) =	314,505
December 31, 2014 Layer	56,248	x	0.08644	(1.30351 - 1.21707) =	4,862
December 31, 2016 Layer	1,113,883	x	0.02926	(1.30351 - 1.27425) =	32,592
December 31, 2018 Layer	8,548,339	x	0	(1.30351 - 1.30351) =	0
	12,695,595			Per Above	351,959 *
	(37)				
Per schedule	12,695,558				

2020 There is no payback because the computations reflect an increment (and not a decrement)

2020 L/R Payback Due to Decrement in Base Dollars - Not Applicable

			Amount Contributed to LIFO Reserve at Dec. 31, 2019		
		x			
Per schedule	-			Per Above	- †

2021 L/R Payback Due to Decrement in Base Dollars

			Amount Contributed to LIFO Reserve at Dec. 31, 2020		
December 31, 2012 Layer	10,586,462	x	0.190535	(1.345105 - 1.154570) =	2,017,092
December 31, 2013 Layer	735,297	x	0.147235	(1.345105 - 1.197870) =	108,261
December 31, 2020 Layer	4,576,061	x	0	(1.345105 - 1.345105) =	0
	15,897,820				2,125,353
	-				37
Per schedule	15,897,820			Per Above	2,125,390 **

2022 There is no payback because the computations reflect an increment (and not a decrement)

2022 L/R Payback Due to Decrement in Base Dollars - Not Applicable

			Amount Contributed to LIFO Reserve at Dec. 31, 2021		
		x			
Per schedule	-			Per Above	- ††

2023 L/R Payback Due to Decrement in Base Dollars

			Amount Contributed to LIFO Reserve at Dec. 31, 2022		
December 31, 2022 Layer	342,514	x	0	(1.378942 - 1.378942) =	0
Per schedule	342,514			Per Above	0 ***

Note: All rounding dollar amounts are due to differences in the display of decimal calculations.

XYZ, Inc. - Projections 2(c) ... Using Substitute Cost Dec. 31, 2020

Composition of LIFO Inventory Pool & Contribution Made by Each Layer to the LIFO Reserve

For the Years Indicated Below

Calendar Year 2020 Substitute Inventory Cost
(Average 2017, 2018 & 2019)

	Base Dollars	*Valuation Factor*	*LIFO Valuation*	*Composition & Proof of LIFO Reserve as of Dec. 31, 2020 - Substitute Cost* Base Dollars	Proof Factor	Composition of LIFO Reserve
Analysis of Year-End LIFO Inventory Layers						
Calendar Year 1985	2,279,795	0.517470	1,179,726	2,279,795	0.827635	1,886,838
Calendar Year 1992	917,975	0.649710	596,418	917,975	0.695395	638,355
Calendar Year 1994	527,962	0.708260	373,934	527,962	0.636845	336,230
Calendar Year 1995	466,372	0.737590	343,991	466,372	0.607515	283,328
Calendar Year 1996	48,996	0.752690	36,879	48,996	0.592415	29,026
Calendar Year 1997	525,898	0.775950	408,071	525,898	0.569155	299,317
Calendar Year 1999	2,257,479	0.830310	1,874,407	2,257,479	0.514795	1,162,139
Calendar Year 2000	151,649	1.016410	154,138	151,649	0.328695	49,846
Calendar Year 2001	1,033,581	0.850860	879,433	1,033,581	0.494245	510,842
Calendar Year 2002	1,354,753	0.880270	1,192,548	1,354,753	0.464835	629,737
Rebased as of 12/31/06	-	-	-	-	-	-
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.609094	5,825,659
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.225695	894,420
Calendar Year 2011	3,946,822	1.133130	4,472,262	3,946,822	0.211975	836,628
Calendar Year 2012	10,587,533	1.154570	12,224,048	10,587,533	0.190535	2,017,296
Calendar Year 2013	735,297	1.197870	880,790	735,297	0.147235	108,262
Calendar Year 2020	4,576,061	1.345105	6,155,280	4,576,061	(0.000000)	-
Cumulative Index as of Dec. 31, 2020		1.345105		-	-	-
			-			36
Totals	33,373,133		35,208,102	33,373,133		9,682,300
Ending Inventory at LIFO Valuation			35,208,102			
Less: Ending Inventory at Current Cost			44,890,402			
LIFO Reserve at End of Year - Dec. 31, 2020			9,682,300			

Calendar Year 2023 Substitute Inventory - Projected

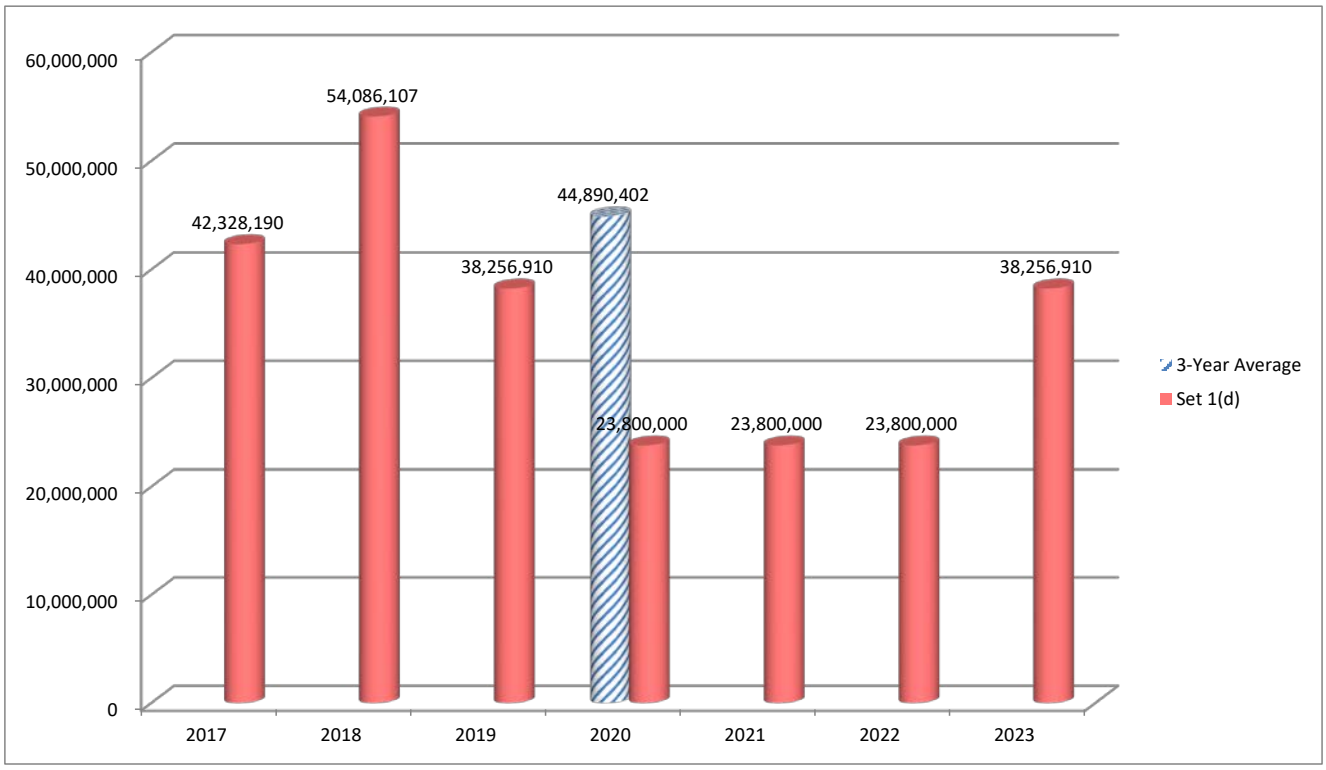
	Base Dollars	*Valuation Factor*	*LIFO Valuation*	*Composition & Proof of LIFO Reserve as of Dec. 31, 2023* Base Dollars	Proof Factor	Composition of LIFO Reserve
Analysis of Year-End LIFO Inventory Layers						
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.660168	6,314,154
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.276769	1,096,824
Calendar Year 2011	3,946,822	1.133130	4,472,262	3,946,822	0.263049	1,038,208
Calendar Year 2012	1,108	1.154332	1,279	1,108	0.241847	268
Calendar Year 2020	9,925,798	1.378942	13,687,103	9,925,798	0.017237	171,088
Cumulative Index as of Dec. 31, 2023		1.396179		-		-
			1			2
Totals	27,401,148		29,636,366	27,401,148		8,620,544
Ending Inventory at LIFO Valuation			29,636,366			
Less: Ending Inventory at Current Cost			38,256,910			
LIFO Reserve at End of Year - Dec. 31, 2023			8,620,544			

Note: All annual historical layers retain their individual status. The subtotal for "all prior years" simply shows the average rate, and this is reflected in the computational schedules to avoid repeating all of the individual detail by years. All rounding dollar amounts are due to differences in the display of decimal calculations.

Facts & Summary of Results for Case Study Sets 1(d) & 2(d)

The Taxpayer's Inventory Remains Low for 2 More Years; Then It Returns to the Pre-Liquidation Level at the End of the Third Year

Actual (Historical) Cost Dec. 31, 2017 - 2020 **Projected 3-Year Recovery Period**



	2017	2018	2019	2020	2021	2022	2023
3-Year Average				44,890,402			
Set 1(d)	42,328,190	54,086,107	38,256,910	23,800,000	23,800,000	23,800,000	38,256,910

Sets 1(d) & 2(d) … For 2021 & 2022 the ending inventories remain at the 2020 actual liquidation level ($23,800,000), and the inventory increases to the pre-liquidation level ($38,256,910) in 2023. In other words, it takes the entire 3-year recovery period for the inventory level to return to the pre-liquidation level. Accordingly, by the end of the third year of the recovery period (Dec. 31, 2023), the taxpayer's inventory level has returned to the pre-liquidation level of $38,256,910.

Summary of Results for Case Study Sets 1(d) & 2(d)

1. Impact of the decrement in the amount of $1,899,336 in 2020 (if actual cost is used) is spread over the years 2021 in the amount $2,125,390 and $49,336 in 2022. Total decrement impact is $2,174,726.
2. Recovery period is 3 years (2021, 2022, and 2023), ending Dec. 31, 2023.
3. LIFO Reserve at Dec. 31, 2019/Jan. 1, 2020 in the amount of $9,204,088 is decreased by $811,360 to $8,392,728 as of Dec. 31, 2023.
4. This net adjustment of the decrease of $811,360 over the period of 4 years (2020 - 2023) reflects an increase due to inflation in the amount of $1,363,368, and this is offset by a reduction in (or payback of) the LIFO Reserve due to shifting of the decrement of $2,174,726 in 2021 and 2022 ($2 rounding).
5. Using the substitute cost calculation method, the increase in the LIFO reserve due to inflation for 2020 is greater by $184,385 ($478,212 - $293,827). This method resulted in avoiding the decrement of $11,103,317 computed if the actual cost at Dec. 31, 2020 had been used. The effective rate of inflation for 2020 (0.016606 = 1.345105 – 1.328498) multiplied by the $11,103,307 decrement that does not exist when the substitute cost method is used ($28,797,109 - $17,693,792) results in the $184,385 difference. This difference is eliminated from the adjustment by the greater amount of decrement carried back in the 2021 calculations.
6. In 2024, (the first year after the end of the recovery period) the LIFO layer history through Dec. 31, 2023 as computed under the substitute cost calculation method reflects base dollars of $27,401,148 valued at $29,864,181. These are the same amounts as those in the LIFO layer history if the substitute cost calculation method had not been used (i.e., as if the actual cost method had been used).
7. In 2024 (the first year after the end of the recovery period), the taxpayer could continue to use the LIFO layer history under the substitute cost calculation method. Or the taxpayer could use the LIFO layer history as calculated under the actual cost method (i.e., the original method) because the LIFO layer histories as of Dec. 31, 2023 are identical under both methods.

Sets 1(d) & 2(d) - Analysis of Differences in LIFO Reserve Changes by Year

Fact Pattern

1(d) … For 2021 & 2022 the ending inventories remain at the 2020 actual liquidation level ($23,800,000), and the inventory increases to the pre-liquidation level ($38,256,910) in 2023. In other words, it takes the entire 3-year recovery period for the inventory level to return to the pre-liquidation level. Accordingly, by the end of the third year of the recovery period (Dec. 31, 2023), the taxpayer's inventory level has returned to the pre-liquidation level of $38,256,910.

	2020	2021	2022	2023	Total
2(d) Substitute Level					
Due to Inflation	478,212	293,827	293,827	297,501	1,363,368
Due to Decrement Carryback	0	(2,125,390)	(49,336)	0	(2,174,726)
Rounding					0
Net Change in LIFO Reserve	478,212	(1,831,563)	244,491	297,501	(811,358)
1(d) Actual Inventory Level					
Due to Inflation	293,827	293,827	293,827	297,500	1,178,981
Due to Decrement Carryback	(1,899,336)	(41,620)	(49,337)	0	(1,990,292)
Rounding	(49)				(49)
Net Change in LIFO Reserve	(1,605,558)	252,207	244,491	297,500	(811,360)
	2,083,770	(2,083,770)	1	1	1

	1(d)	*2(d)*	*Difference*	*Inflation*	*L/R Payback*
Dec. 31, 2019 LIFO Reserve	9,204,088	9,204,088	0		
2020 LIFO Reserve Change					
Due to Inflation	293,827	478,212	184,385	184,385	
Due to Decrement Carryback	(1,899,336)	0	1,899,336		1,899,336
Rounding	(49)		49		
Net Change in LIFO Reserve	(1,605,558)	478,212	2,083,770		
2021 LIFO Reserve Change					
Due to Inflation	293,827	293,827	0	0	
Due to Decrement Carryback	(41,620)	(2,125,390)	(2,083,770)		(2,083,770)
Rounding			0		
Net Change in LIFO Reserve	252,207	(1,831,563)	(2,083,770)		
2022 L/R Change Due to Inflation					
Due to Inflation	293,827	293,827	0	0	
Due to Decrement Carryback	(49,337)	(49,336)	1		1
Rounding			0		
Net Change in LIFO Reserve	244,491	244,491	1		
2023 L/R Change Due to Inflation	297,500	297,501	1	1	
Subtotal	(811,360)	(811,358)	1		
Additional Inflation - Per 2(d)	184,386	-	-	184,386	
Less: More LIFO Reserve Payback - Per 2(d)	(184,434)	-	-		(184,434)
Rounding	47	(2)	(1)		
Dec. 31, 2023 LIFO Reserve	8,392,728	8,392,728			
			0		
Dec. 31, 2023 LIFO Reserve	8,392,728				
Dec. 31, 2019 LIFO Reserve	(9,204,088)				
*Net Adjustment	(811,360)				

* Net adjustment at Dec. 31, 2023 (the last year of the 3-year recovery period) to reflect the year-by-year changes in the LIFO reserve balances over the 4-year period (2020-2023) and to decrease the LIFO reserve balance at Dec. 31, 2019 to the amount shown as the LIFO reserve balance at Dec. 31, 2023 which was determined by using the substitute (3-year historical average cost) to determine the LIFO valuations.

Over the 4-year period (2020-2023), the taxpayer's LIFO reserve has decreased by $811,360. The relief the taxpayer has received is that it has avoided having to take the net decrease in the LIFO reserve as Dec. 31, 2020 (i.e., $1,605,558) into income in its 2020 income tax return. At a 21% tax rate, this avoided Federal tax in the amount of $337,167.

The LIFO reserve balance at the end of the pre-recovery period (as of Dec. 31, 2019) would be frozen (i.e., remain unchanged) during the recovery period. In other words, any adjustments to the LIFO reserve balances during the recovery period would be "suspended." Only the net adjustment amount would be recorded to either increase or decrease the LIFO reserve to the appropriate amount as of the end of the recovery period (in this case, as of Dec. 31, 2023).

This has allowed the taxpayer to receive the benefit of 4 years' worth of inflation ($1,363,368), and it reflects the impact of the decrement as calculated using the substitute inventory level ($2,174,726), which nets to an decrease of $811,360 ($2 rounding).

XYZ, Inc. - 1(d)

1(d): Three-Year Projection of LIFO Inventories - Based on Actual Inventory Amount for Dec. 31, 2020

For 2021 & 2022 Ending Inventories Remain at 2020 Actual Liquidation Level & Increases to Pre-Liquidation Level in 2023

	2018	2019	2020	2021	2022	2023
A. Beginning-of-year inventory at base date cost	32,944,328	41,492,667	28,797,109	17,693,792	17,475,350	17,259,605
B. End-of-year inventory at end-of-year (current) prices	54,086,107	38,256,910 *	23,800,000 **	23,800,000 **	23,800,000 **	38,256,910 *
C. End-of-year inventory at beginning of year (base prices)	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced
D. Current Year Price Index: End of year inventory priced at end-of-year prices (divided by) Ratio of: End of year inventory priced at beginning-of-year prices	1.014530	1.019170	1.012500	1.012500	1.012500	1.012500
E. Cumulative link-chain index: Current-year price index (Line D) multiplied by (x) Prior year's cumulative index (Line E of prior year)	1.303510	1.328498	1.345105	1.361918	1.378942	1.396179
F. End-of-year inventory at base date cost (Line B divided by Line E)	41,492,667	28,797,109	17,693,792	17,475,350	17,259,605	27,401,148
G. Current year inventory increase (decrease) - Expressed in base dollars						
1. End-of-year inventory at base date cost (Line F)	41,492,667	28,797,109	17,693,792	17,475,350	17,259,605	27,401,148
2. Beginning-of-year inventory at base date cost (Line A)	32,944,328	41,492,667	28,797,109	17,693,792	17,475,350	17,259,605
3. Current-year increment (G(1) exceeds G(2)) or decrease (if G(2) exceeds G(1))	8,548,339	(12,695,558)	(11,103,317)	(218,442)	(215,745)	10,141,543
	x 1.303510	x -	x -	-	x -	x 1.396179
4. LIFO valuation of current-year increment (If G(1) exceeds G(2), multiply Line G(3) by Line E)	11,142,846	N/A	N/A	N/A	N/A	14,159,410

H. Analysis of Year-End Inventory LIFO "Layers"

Calendar Year 2018

	Base Dollars		*Valuation Factor*	
Calendar Year 1985	2,279,795	x	0.517470	1,179,726
Calendar Year 1992	917,975	x	0.649710	596,418
Calendar Year 1994	527,962	x	0.708260	373,934
Calendar Year 1995	466,372	x	0.737590	343,991
Calendar Year 1996	48,996	x	0.752690	36,879
Calendar Year 1997	525,898	x	0.775950	408,071
Calendar Year 1999	2,257,479	x	0.830310	1,874,407
Calendar Year 2000	151,649	x	1.016410	154,138
Calendar Year 2001	1,033,581	x	0.850860	879,433
Calendar Year 2002	1,354,753	x	0.880270	1,192,548
Rebased as of 12/31/06	0	x	1.000000	-
* Subtotal - All Prior Years	9,564,460			7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	3,712,422	x	1.197870	4,446,999
Calendar Year 2014	56,248	x	1.217070	68,458
Calendar Year 2016	1,113,883	x	1.274250	1,419,365
Calendar Year 2018	8,548,339	x	1.303510	11,142,845
	41,492,667			45,249,699

Calendar Year 2019

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	735,297	x	1.197870	880,790
	28,797,072			29,052,822

Calendar Year 2020

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	219,550	x	1.154570	253,486
	17,693,792			16,201,470

Calendar Year 2021

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	1,108	x	1.154570	1,279
	17,475,350			15,949,263

Calendar Year 2022

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,732,185	x	1.133130	4,229,051
Calendar Year 2012		x		-
	17,259,605			15,704,772

Calendar Year 2023

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,732,185	x	1.133130	4,229,051
Calendar Year 2012		x		-
Calendar Year 2022	10,141,543	x	1.396179	14,159,410
	27,401,148			29,864,182

	2018	2019	2020	2021	2022	2023	
Ending Inventory at LIFO Valuation, per Above	45,249,699	29,052,822	16,201,470	15,949,263	15,704,772	29,864,182	
Less: Ending Inventory at End-of-Year Prices (Line B)	54,086,107	38,256,910	23,800,000	23,800,000	23,800,000	38,256,910	
LIFO Reserve at End of the Year	8,836,408	9,204,088	7,598,530	7,850,737	8,095,228	8,392,728	
LIFO Reserve at Beginning of Year	8,221,336	8,836,408	9,204,088	7,598,530	7,850,737	8,095,228	
Net Increase (Decrease) in LIFO Reserve	615,072	367,680	(1,605,558)	252,207	244,491	297,500	
Net Change Over 4 Years			(1,605,558)	252,207	244,491	297,500	(811,360) Net Change

† The calculations for 2020 reflect the actual ending inventory as of Dec. 31, 2020

Note: See accompanying schedules for proofs and reconciliations of (1) composition of the layers in the LIFO Reserve balances as of year-end and (2) components of the changes in the LIFO Reserve for the years indicated above.

XYZ, INC. - PROJECTIONS 1(d) ... USING ACTUAL COST AT DEC. 31, 2020

SUMMARY OF LIFO RESERVE BALANCES & ANALYSES OF NET INCREASE (DECREASE) IN LIFO RESERVE

FOR THE YEARS INDICATED BELOW

	2019	Actual Cost 2020	Projected 2021	Projected 2022	Projected 2023
LIFO Reserve at End of the Year	9,204,088	7,598,530	7,850,737	8,095,228	8,392,728
LIFO Reserve at Beginning of Year	8,836,408	9,204,088	7,598,530	7,850,737	8,095,228
Net Increase (Decrease) in LIFO Reserve	367,680	(1,605,558)	252,207	244,491	297,500

Analysis of Net Increase (Decrease) in LIFO Reserve	2019	Actual Cost 2020	Projected 2021	Projected 2022	Projected 2023
Increase in LIFO reserve due to inflation					
Cumulative index at end-of-year	1.328498	1.345105	1.361918	1.378942	1.396179
Cumulative index at beginning-of-year	(1.303510)	(1.328498)	(1.345105)	(1.361918)	(1.378942)
Difference - Effective rate of inflation	0.024988	0.016606	0.016814	0.017024	0.017237
Lower of beginning-of-year or end-of-year inventory expressed in base dollars	28,797,109	17,693,792	17,475,350	17,259,605	17,259,605
Increase in LIFO reserve due to inflation	719,590	293,827	293,827	293,827	297,500
Decrease due to payback (reduction in LIFO reserve) caused by the carry back of the decrement against prior years' layers (per schedule below)	(351,959) *	(1,899,336) †	(41,620) **	(49,337) ††	0 ***
Rounding	49	(49)			
Net increase (decrease) in LIFO reserve at year-end	367,680	(1,605,558)	252,207	244,491	297,500

2019 L/R Payback Due to Decrement in Base Dollars

	Base Dollars		Amount Contributed to LIFO Reserve at Dec. 31, 2018		LIFO Reserve Recapture
December 31, 2013 Layer	2,977,125	x	0.10564	(1.30351 - 1.19787) =	314,505
December 31, 2014 Layer	56,248	x	0.08644	(1.30351 - 1.21707) =	4,862
December 31, 2016 Layer	1,113,883	x	0.02926	(1.30351 - 1.27425) =	32,592
December 31, 2018 Layer	8,548,339	x	0	(1.30351 - 1.30351) =	0
	12,695,595			Per Above	351,959 *
	(37)				
Per schedule	12,695,558				

2020 L/R Payback Due to Decrement in Base Dollars

			Amount Contributed to LIFO Reserve at Dec. 31, 2019		
December 31, 2012 Layer	10,367,983	x	0.173928	(1.328498 - 1.154570) =	1,803,284
December 31, 2013 Layer	735,297	x	0.130628	(1.328498 - 1.197870) =	96,052
	11,103,280			Per Above	1,899,336
	37				-
Per schedule	11,103,317				1,899,336 †

2021 L/R Payback Due to Decrement in Base Dollars

			Amount Contributed to LIFO Reserve at Dec. 31, 2020		
December 31, 2020 Layer	218,442	x	0.190535	(1.345105 - 1.154570) =	41,620
Per schedule	218,442			Per Above	41,620 **

2022 L/R Payback Due to Decrement in Base Dollars

			Amount Contributed to LIFO Reserve at Dec. 31, 2021		
December 31, 2011 Layer	214,637	x	0.228788	(1.361918 - 1.133130) =	49,106
December 31, 2012 Layer	1,108	x	0.207348	(1.361918 - 1.154570) =	231
Per schedule	215,745			Per Above	49,337 ††

2023 There is no payback because the computations reflect an increment (and not a decrement)

2023 L/R Payback Due to Decrement in Base Dollars - Not Applicable

			Amount Contributed to LIFO Reserve at Dec. 31, 2022		
		x			
Per schedule	-			Per Above	- ***

Note: All rounding dollar amounts are due to differences in the display of decimal calculations.

XYZ, Inc. - Projections 1(d) ... Using Actual Cost Dec. 31, 2020

Composition of LIFO Inventory Pool & Contribution Made by Each Layer to the LIFO Reserve

For the Years Indicated Below

Calendar Year 2020 Actual Inventory				***Composition & Proof of LIFO Reserve as of Dec. 31, 2020***		
	Base Dollars	***Valuation Factor***	***LIFO Valuation***	***Base Dollars***	***Proof Factor***	***Composition of LIFO Reserve***
Analysis of Year-End LIFO Inventory Layers						
Calendar Year 1985	2,279,795	0.517470	1,179,726	2,279,795	0.827635	1,886,838
Calendar Year 1992	917,975	0.649710	596,418	917,975	0.695395	638,355
Calendar Year 1994	527,962	0.708260	373,934	527,962	0.636845	336,230
Calendar Year 1995	466,372	0.737590	343,991	466,372	0.607515	283,328
Calendar Year 1996	48,996	0.752690	36,879	48,996	0.592415	29,026
Calendar Year 1997	525,898	0.775950	408,071	525,898	0.569155	299,317
Calendar Year 1999	2,257,479	0.830310	1,874,407	2,257,479	0.514795	1,162,139
Calendar Year 2000	151,649	1.016410	154,138	151,649	0.328695	49,846
Calendar Year 2001	1,033,581	0.850860	879,433	1,033,581	0.494245	510,842
Calendar Year 2002	1,354,753	0.880270	1,192,548	1,354,753	0.464835	629,737
Rebased as of 12/31/06	-	-	-	-	-	-
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.609094	5,825,659
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.225695	894,420
Calendar Year 2011	3,946,822	1.133130	4,472,262	3,946,822	0.211975	836,628
Calendar Year 2012	219,550	1.154571	253,486	219,550	0.190534	41,832
Cumulative Index as of Dec. 31, 2020		1.345105		-		-
			-			(8)
Totals	17,693,792		16,201,470	17,693,792		7,598,530
Ending Inventory at LIFO Valuation			16,201,470			
Less: Ending Inventory at Current Cost			23,800,000			
LIFO Reserve at End of Year - Dec. 31, 2020			7,598,530			

Calendar Year 2023 Actual Inventory - Projected				***Composition & Proof of LIFO Reserve as of Dec. 31, 2023***		
	Base Dollars	***Valuation Factor***	***LIFO Valuation***	***Base Dollars***	***Proof Factor***	***Composition of LIFO Reserve***
Analysis of Year-End LIFO Inventory Layers						
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.660168	6,314,154
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.276769	1,096,824
Calendar Year 2011	3,732,185	1.133130	4,229,051	3,732,185	0.263049	981,747
Calendar Year 2022	10,141,543	1.396179	14,159,410	10,141,543	(0.000000)	0
Cumulative Index as of Dec. 31, 2023		1.396179		-		-
						2
Totals	27,401,148		29,864,182	27,401,148		8,392,728
Ending Inventory at LIFO Valuation			29,864,182			
Less: Ending Inventory at Current Cost			38,256,910			
LIFO Reserve at End of Year - Dec. 31, 2023			8,392,728			

Note: All annual historical layers retain their individual status. The subtotal for "all prior years" simply shows the average rate, and this is reflected in the computational schedules to avoid repeating all of the individual detail by years. All rounding dollar amounts are due to differences in the display of decimal calculations.

XYZ, Inc. - 2(d)

2(d): Three-Year Projection of LIFO Inventories - Based on Substitute Inventory Amount for Dec. 31, 2020
For 2021 & 2022 Ending Inventories Remain at 2020 Actual Liquidation Level & Increases to Pre-Liquidation Level in 2023

	2018	2019	2020 Substitute Cost	2021	2022	2023
A. Beginning-of-year inventory at base date cost	32,944,328	41,492,667	28,797,109	33,373,170	17,475,350	17,259,605
B. End-of-year inventory at end-of-year (current) prices	54,086,107	38,256,910	44,890,402	23,800,000 *	23,800,000 *	38,256,910
C. End-of-year inventory at beginning of year (base prices)	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced
D. Current Year Price Index:						
End of year inventory priced at end-of-year prices (divided by)						
Ratio of: ----------	1.014530	1.019170	1.012500	1.012500	1.012500	1.012500
End of year inventory priced at beginning-of-year prices						
E. Cumulative link-chain index:						
Current-year price index (Line D) multiplied by (x)						
Prior year's cumulative index (Line E of prior year)	1.303510	1.328498	1.345105	1.361918	1.378942	1.396179
F. End-of-year inventory at base date cost (Line B divided by Line E)	41,492,667	28,797,109	33,373,170	17,475,350	17,259,605	27,401,148
G. Current year inventory increase (decrease) - Expressed in base dollars						
1. End-of-year inventory at base date cost (Line F)	41,492,667	28,797,109	33,373,170	17,475,350	17,259,605	27,401,148
2. Beginning-of-year inventory at base date cost (Line A)	32,944,328	41,492,667	28,797,109	33,373,170	17,475,350	17,259,605
3. Current-year increment (G(1) exceeds G(2)) or decrease (if G(2) exceeds G(1))	8,548,339	(12,695,558)	4,576,061	(15,897,820)	(215,745)	10,141,543
	x 1.303510	x -	x 1.345105	-	x -	x 1.396179
4. LIFO valuation of current-year increment (If G(1) exceeds G(2), multiply Line G(3) by Line E)	11,142,846	N/A	6,155,281	N/A	N/A	14,159,410

H. Analysis of Year-End Inventory LIFO "Layers"

Calendar Year 2018 - Based on Actual Cost

	Base Dollars		*Valuation Factor*	
Calendar Year 1985	2,279,795	x	0.517470	1,179,726
Calendar Year 1992	917,975	x	0.649710	596,418
Calendar Year 1994	527,962	x	0.708260	373,934
Calendar Year 1995	466,372	x	0.737590	343,991
Calendar Year 1996	48,996	x	0.752690	36,879
Calendar Year 1997	525,898	x	0.775950	408,071
Calendar Year 1999	2,257,479	x	0.830310	1,874,407
Calendar Year 2000	151,649	x	1.016410	154,138
Calendar Year 2001	1,033,581	x	0.850860	879,433
Calendar Year 2002	1,354,753	x	0.880270	1,192,548
Rebased as of 12/31/06	0	x	1.000000	-
** Subtotal - All Prior Years	9,564,460			7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	3,712,422	x	1.197870	4,446,999
Calendar Year 2014	56,248	x	1.217070	68,458
Calendar Year 2016	1,113,883	x	1.274250	1,419,365
Calendar Year 2018	8,548,339	x	1.303510	11,142,845
	41,492,667			45,249,699

Calendar Year 2019 - Based on Actual Cost

	Base Dollars		*Valuation Factor*	
** Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	735,297	x	1.197870	880,790
	28,797,072			29,052,822

Calendar Year 2020 - Substitute Cost

	Base Dollars		*Valuation Factor*	
** Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	735,297	x	1.197870	880,790
Calendar Year 2020	4,576,061	x	1.345105	6,155,280
	33,373,133			35,208,102

Calendar Year 2021 - Substitute Cost

	Base Dollars		*Valuation Factor*	
** Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	1,108	x	1.154570	1,279
Calendar Year 2013		x		-
Calendar Year 2020		x		-
	17,475,350			15,949,263

Calendar Year 2022 - Substitute Cost

	Base Dollars		*Valuation Factor*	
** Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,732,185	x	1.133130	4,229,051
Calendar Year 2012		x		-
Calendar Year 2013		x		-
Calendar Year 2020		x		-
		x		-
	17,259,605			15,704,772

Calendar Year 2023 - Substitute Cost

	Base Dollars		*Valuation Factor*	
** Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,732,185	x	1.133130	4,229,051
Calendar Year 2012		x		-
Calendar Year 2013		x		-
Calendar Year 2020		x		-
Calendar Year 2023	10,141,543	x	1.396179	14,159,409
	27,401,148			29,864,181

	2018	2019	2020 Substitute Cost	2021	2022	2023	
Ending Inventory at LIFO Valuation, per Above	45,249,699	29,052,822	35,208,102	15,949,263	15,704,772	29,864,181	
Less: Ending Inventory at End-of-Year Prices (Line B)	54,086,107	38,256,910	44,890,402	23,800,000	23,800,000	38,256,910	
LIFO Reserve at End of the Year	8,836,408	9,204,088	9,682,300	7,850,737	8,095,228	8,392,729	
LIFO Reserve at Beginning of Year	8,221,336	8,836,408	9,204,088	9,682,300	7,850,737	8,095,228	
Net Increase (Decrease) in LIFO Reserve	615,072	367,680	478,212	(1,831,563)	244,491	297,501	
Net Change Over 4 Years			478,212	(1,831,563)	244,491	297,501	(811,360) Net Change

† The calculations for 2020 reflect the 3-year historical average of ending inventory costs (Dec. 31, 2017 - 2019) - substitute cost replaces actual cost - as of Dec. 31, 2020.

* Actual cost of Dec. 31, 2020 inventory is $23,800,000. This is $21,090,402 less than the substitute cost ($44,890,402).

** The subtotal for all prior years 1985 through calendar year 2009.

Note: See accompanying schedules for proofs and reconciliations of (1) composition of the layers in the LIFO Reserve balances as of year-end and (2) components of the changes in the LIFO Reserve for the years indicated above.

XYZ, INC. - PROJECTIONS 2(d) ... USING SUBSTITUTE COST AT DEC. 31, 2020

SUMMARY OF LIFO RESERVE BALANCES & ANALYSES OF NET INCREASE (DECREASE) IN LIFO RESERVE

FOR THE YEARS INDICATED BELOW

	2019	Substitute Cost 2020	Projected 2021	Projected 2022	Projected 2023
LIFO Reserve at End of the Year	9,204,088	9,682,300	7,850,737	8,095,228	8,392,729
LIFO Reserve at Beginning of Year	8,836,408	9,204,088	9,682,300	7,850,737	8,095,228
Net Increase (Decrease) in LIFO Reserve	367,680	478,212	(1,831,563)	244,491	297,501

Analysis of Net Increase (Decrease) in LIFO Reserve	2019	Substitute Cost 2020	Projected 2021	Projected 2022	Projected 2023
Increase in LIFO reserve due to inflation					
Cumulative index at end-of-year	1.328498	1.345105	1.361918	1.378942	1.396179
Cumulative index at beginning-of-year	(1.303510)	(1.328498)	(1.345105)	(1.361918)	(1.378942)
Difference - Effective rate of inflation	0.024988	0.016606	0.016814	0.017024	0.017237
Lower of beginning-of-year or end-of-year inventory expressed in base dollars	28,797,109	28,797,109	17,475,350	17,259,605	17,259,605
Increase in LIFO reserve due to inflation	719,590	478,212	293,827	293,827	297,501
Decrease due to payback (reduction in LIFO reserve) caused by the carry back of the decrement against prior years' layers (per schedule below)	(351,959) *	0 †	(2,125,390) **	(49,336) ††	0 ***
Rounding	49				
Net increase (decrease) in LIFO reserve at year-end	367,680	478,212	(1,831,563)	244,491	297,501

2019 L/R Payback Due to Decrement in Base Dollars

	Base Dollars		*Amount Contributed to LIFO Reserve at Dec. 31, 2018*		*LIFO Reserve Recapture*
December 31, 2013 Layer	2,977,125	x	0.10564	(1.30351 - 1.19787) =	314,505
December 31, 2014 Layer	56,248	x	0.08644	(1.30351 - 1.21707) =	4,862
December 31, 2016 Layer	1,113,883	x	0.02926	(1.30351 - 1.27425) =	32,592
December 31, 2018 Layer	8,548,339	x	0	(1.30351 - 1.30351) =	0
	12,695,595			Per Above	351,959 *
	(37)				
Per schedule	12,695,558				

2020 There is no payback because the computations reflect an increment (and not a decrement)

2020 L/R Payback Due to Decrement in Base Dollars - Not Applicable

			Amount Contributed to LIFO Reserve at Dec. 31, 2019		
		x			
Per schedule	-			Per Above	- †

2021 L/R Payback Due to Decrement in Base Dollars

			Amount Contributed to LIFO Reserve at Dec. 31, 2020		
December 31, 2012 Layer	10,586,462	x	0.190535	(1.345105 - 1.154570) =	2,017,092
December 31, 2013 Layer	735,297	x	0.147235	(1.345105 - 1.197870) =	108,261
December 31, 2020 Layer	4,576,061	x	0	(1.345105 - 1.345105) =	0
	15,897,820				2,125,353
	-				37
Per schedule	15,897,820			Per Above	2,125,390 **

2022 L/R Payback Due to Decrement in Base Dollars

			Amount Contributed to LIFO Reserve at Dec. 31, 2021		
December 31, 2011 Layer	214,637	x	0.228788	(1.361918 - 1.133130) =	49,106
December 31, 2012 Layer	1,108	x	0.207348	(1.361918 - 1.154570) =	230
	215,745			Per Above	49,336
	-				-
Per schedule	215,745				49,336 ††

2023 There is no payback because the computations reflect an increment (and not a decrement)

2023 L/R Payback Due to Decrement in Base Dollars - Not Applicable

			Amount Contributed to LIFO Reserve at Dec. 31, 2022		
		x			
Per schedule	-			Per Above	- ***

Note: All rounding dollar amounts are due to differences in the display of decimal calculations.

XYZ, Inc. - Projections 2(d) ... Using Substitute Cost Dec. 31, 2020

Composition of LIFO Inventory Pool & Contribution Made by Each Layer to the LIFO Reserve

For the Years Indicated Below

Calendar Year 2020 Substitute Inventory Cost
(Average 2017, 2018 & 2019)

				Composition & Proof of LIFO Reserve as of Dec. 31, 2020 - Substitute Cost		
	Base Dollars	*Valuation Factor*	*LIFO Valuation*	*Base Dollars*	*Proof Factor*	*Composition of LIFO Reserve*
Analysis of Year-End LIFO Inventory Layers						
Calendar Year 1985	2,279,795	0.517470	1,179,726	2,279,795	0.827635	1,886,838
Calendar Year 1992	917,975	0.649710	596,418	917,975	0.695395	638,355
Calendar Year 1994	527,962	0.708260	373,934	527,962	0.636845	336,230
Calendar Year 1995	466,372	0.737590	343,991	466,372	0.607515	283,328
Calendar Year 1996	48,996	0.752690	36,879	48,996	0.592415	29,026
Calendar Year 1997	525,898	0.775950	408,071	525,898	0.569155	299,317
Calendar Year 1999	2,257,479	0.830310	1,874,407	2,257,479	0.514795	1,162,139
Calendar Year 2000	151,649	1.016410	154,138	151,649	0.328695	49,846
Calendar Year 2001	1,033,581	0.850860	879,433	1,033,581	0.494245	510,842
Calendar Year 2002	1,354,753	0.880270	1,192,548	1,354,753	0.464835	629,737
Rebased as of 12/31/06	-	-	-	-	-	-
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.609094	5,825,659
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.225695	894,420
Calendar Year 2011	3,946,822	1.133130	4,472,262	3,946,822	0.211975	836,628
Calendar Year 2012	10,587,533	1.154570	12,224,048	10,587,533	0.190535	2,017,296
Calendar Year 2013	735,297	1.197870	880,790	735,297	0.147235	108,262
Calendar Year 2020	4,576,061	1.345105	6,155,280	4,576,061	(0.000000)	-
Cumulative Index as of Dec. 31, 2020		1.345105		-	-	-
			-			36
Totals	33,373,133		35,208,102	33,373,133		9,682,300
Ending Inventory at LIFO Valuation			35,208,102			
Less: Ending Inventory at Current Cost			44,890,402			
LIFO Reserve at End of Year - Dec. 31, 2020			9,682,300			

Calendar Year 2023 Substitute Inventory - Projected

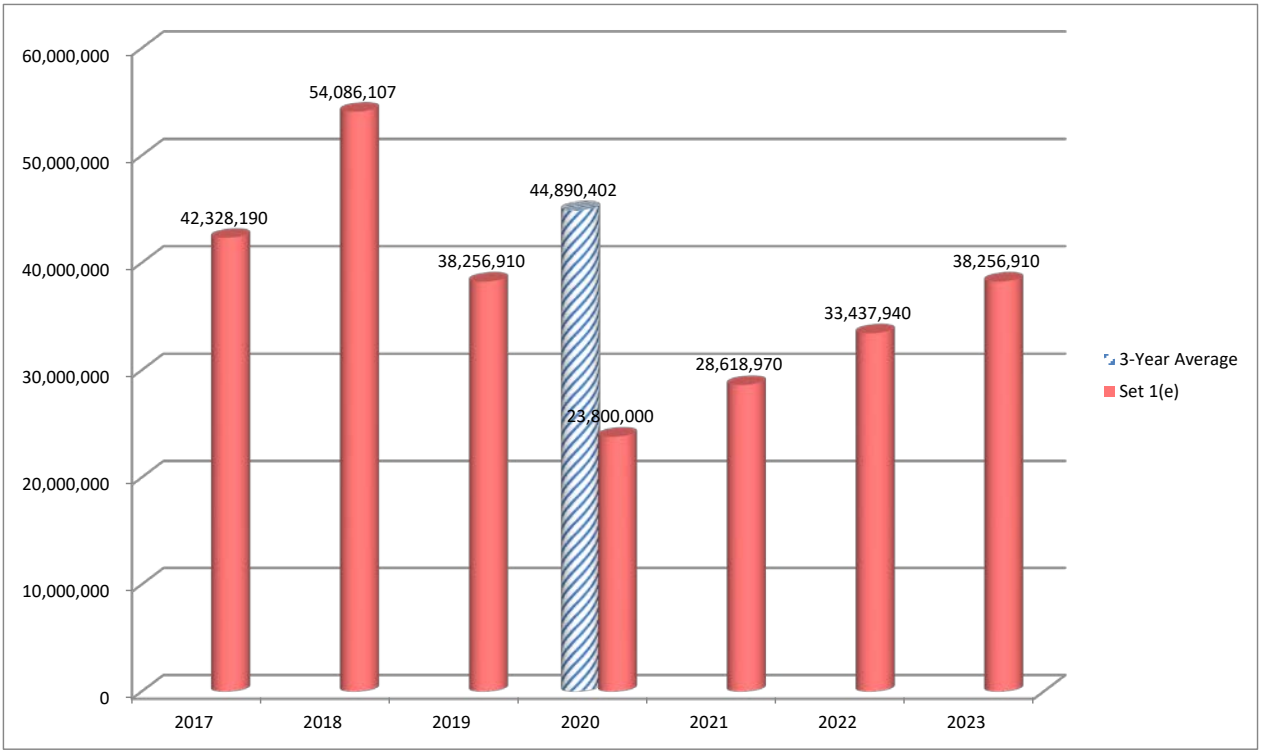
				Composition & Proof of LIFO Reserve as of Dec. 31, 2023		
	Base Dollars	*Valuation Factor*	*LIFO Valuation*	*Base Dollars*	*Proof Factor*	*Composition of LIFO Reserve*
Analysis of Year-End LIFO Inventory Layers						
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.660168	6,314,154
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.276769	1,096,824
Calendar Year 2011	3,732,185	1.133130	4,229,051	3,732,185	0.263049	981,747
Calendar Year 2023	10,141,543	1.396179	14,159,409	10,141,543	0.000000	0
Cumulative Index as of Dec. 31, 2023		1.396179		-		-
						3
Totals	27,401,148		29,864,181	27,401,148		8,392,729
Ending Inventory at LIFO Valuation			29,864,181			
Less: Ending Inventory at Current Cost			38,256,910			
LIFO Reserve at End of Year - Dec. 31, 2023			8,392,729			

Note: All annual historical layers retain their individual status. The subtotal for "all prior years" simply shows the average rate, and this is reflected in the computational schedules to avoid repeating all of the individual detail by years. All rounding dollar amounts are due to differences in the display of decimal calculations.

Facts & Summary of Results for Case Study Sets 1(e) & 2(e)

The Taxpayer's Inventory Level Has Returned to the Pre-Liquidation Level at the End of the Third Year (of the Recovery Period)

Actual (Historical) Cost Dec. 31, 2017 - 2020 ***Projected 3-Year Recovery Period***



	2017	2018	2019	2020	2021	2022	2023
3-Year Average				44,890,402			
Set 1(e)	42,328,190	54,086,107	38,256,910	23,800,000	28,618,970	33,437,940	38,256,910

Sets 1(e) & 2(e) … For 2021, 2022 & 2023 ending inventories increase each year by one-third of liquidation amount. (Liquidation amount is $14,456,910 [$38,256,910 - $23,800,000 ... Increase is $4,818,970 during each year].) Accordingly, by the end of the third year of the recovery period (Dec. 31, 2023), the taxpayer's inventory level has returned to the Dec. 31, 2019 pre-liquidation level ($38,256,910). At the end of each year, inventory amounts are $28,618,970 (2021), $33,437,940 (2022) and $38,256,910 (2023).

Summary of Results for Case Study Sets 1(e) & 2(e)

1. Impact of the decrement in the amount of $1,899,336 in 2020 (if actual cost is used) is shifted to be a decrement in 2021 in the amount of $1,451,210.
2. Recovery period is 3 years (2021, 2022, and 2023), ending Dec. 31, 2023.
3. The LIFO reserve balance at the end of the pre-recovery period (as of Dec. 31, 2019) would be frozen (i.e., remain unchanged) during the recovery period. In other words, any adjustments to the LIFO reserve balances during the recovery period would be "suspended." Only the net adjustment amount would be recorded to either increase or decrease the LIFO reserve to the appropriate amount as of Dec. 31, 2023.
4. LIFO Reserve at Dec. 31, 2019/Jan. 1, 2020 in the amount of $9,204,088 is increased by $156,035 to $9,360,123 as of Dec. 31, 2023.
5. This net adjustment of $156,035 over the period of 4 years (2020 - 2023) reflects an increase due to inflation in the amount of $1,607,245, and this is offset by a reduction in (or payback of) the LIFO Reserve due to shifting of the decrement of $1,451,210 in 2021. The relief the taxpayer has received is that it has avoided having to take the net decrease in the LIFO reserve as Dec. 31, 2020 (i.e., $1,605,558) into income in its 2020 income tax return.
6. This has allowed the taxpayer to receive the benefit of 4 years' worth of inflation ($1,607,245), and it reflects the impact of the decrement as calculated using the substitute inventory level ($1,451,210), which nets to an increase of $156,035.
7. Compared to using the actual cost method for 2020, using the historical average (substitute) method in the calculations over the period has resulted in a $240,206 increase in the LIFO reserve due to the inflation and a further increase in the LIFO reserve of $448,126 because that amount reflects less LIFO reserve payback because of the shifting of the decrement from 2020 to 2021 in slightly different amounts.
8. In 2024, (the first year after the end of the recovery period) the LIFO layer history through Dec. 31, 2023 as computed under the substitute cost calculation method reflects base dollars of $27,401,137 valued at $28,896,797 and a LIFO reserve of $9,360,123.
9. In 2024 (the first year after the end of the recovery period), the taxpayer will continue to use the LIFO layer history under the substitute cost calculation method.

Sets 1(e) & 2(e) - Analysis of Differences in LIFO Reserve Changes by Year

Fact Pattern

1(e) … For 2021, 2022 & 2023 ending inventories increase each year by one-third of liquidation amount. (Liquidation amount is $14,456,910 [$38,256,910 - $23,800,000 ... Increase is $4,818,970 during each year].) Accordingly, by the end of the third year of the recovery period (Dec. 31, 2023), the taxpayer's inventory level has returned to the Dec. 31, 2019 pre-liquidation level ($38,256,910). At the end of each year, inventory amounts are $28,618,970 (2021), $33,437,940 (2022) and $38,256,910 (2023).

	2020	2021	2022	2023	Total
2(e) Substitute (3yr historical avg) Level					
Due to Inflation	478,212	353,321	357,737	417,975	1,607,245
Due to Decrement Carryback	0	(1,451,210)	0	0	(1,451,210)
Rounding					0
Net Change in LIFO Reserve	478,212	(1,097,889)	357,737	417,975	156,036
1(e) Actual (Dec. 31, 2019) Inventory Level					
Due to Inflation	293,827	297,501	357,737	417,974	1,367,040
Due to Decrement Carryback	(1,899,336)	0	0	0	(1,899,336)
Rounding	(49)		14		(35)
Net Change in LIFO Reserve	(1,605,558)	297,501	357,751	417,974	(532,331)
	2,083,770	(1,395,390)	(14)	1	688,367
2(e) LIFO Reserve at Dec. 31, 2023				9,360,123	

	1(e)	*2(e)*	*Difference*	*Inflation*	*L/R Payback*
Dec. 31, 2019 LIFO Reserve	9,204,088	9,204,088	0		
2020 LIFO Reserve Change					
Due to Inflation	293,827	478,212	184,385	184,385	
Due to Decrement Carryback	(1,899,336)	0	1,899,336		1,899,336
Rounding	(49)		49		
Net Change in LIFO Reserve	(1,605,558)	478,212	2,083,770		
2021 LIFO Reserve Change					
Due to Inflation	297,501	353,321	55,820	55,820	
Due to Decrement Carryback	0	(1,451,210)	(1,451,210)		(1,451,210)
Rounding			0		
Net Change in LIFO Reserve	297,501	(1,097,889)	(1,395,390)		
2022 L/R Change Due to Inflation	357,737	357,737	0	0	
2023 L/R Change Due to Inflation	417,974	417,975	1	1	
Subtotal	(532,345)	156,036	688,381		
Additional Inflation - Per 2(e)	240,206	-	-	240,206	
Smaller LIFO Reserve Payback - Per 2(e)	448,126	-	-		448,126
Rounding	48	(1)	(14)		
Dec. 31, 2023 LIFO Reserve	9,360,123	9,360,123			
			688,367		
Dec. 31, 2023 LIFO Reserve	9,360,123				
Dec. 31, 2019 LIFO Reserve	(9,204,088)				
*Net Adjustment	156,035				

* Net adjustment at Dec. 31, 2023 (the last year of the 3-year recovery period) to reflect the year-by-year changes in the LIFO reserve balances over the 4-year period (2020-2023) and to increase the LIFO reserve balance at Dec. 31, 2019 to the amount shown as the LIFO reserve balance at Dec. 31, 2023 which was determined by using the substitute (3-year historical average cost) to determine the LIFO valuations.

Over the 4-year period (2020-2023), the taxpayer's LIFO reserve has increased by only $156,035. The relief the taxpayer has received is that it has avoided having to take the net decrease in the LIFO reserve as Dec. 31, 2020 (i.e., $1,605,558) into income in its 2020 income tax return. At a 21% tax rate, this avoided Federal tax in the amount of $337,167.

The LIFO reserve balance at the end of the pre-recovery period (as of Dec. 31, 2019) would be frozen (i.e., remain unchanged) during the recovery period. In other words, any adjustments to the LIFO reserve balances during the recovery period would be "suspended." Only the net adjustment amount would be recorded to either increase or decrease the LIFO reserve to the appropriate amount as of the end of the recovery period (in this case, as of Dec. 31, 2023).

This has allowed the taxpayer to receive the benefit of 4 years' worth of inflation ($1,607,245), and it reflects the impact of the decrement as calculated using the substitute inventory level ($1,451,210), which nets to an increase of $156,035.

XYZ, Inc. - 1(e)

1(e): Three-Year Projection of LIFO Inventories - Based on Actual Inventory Amount for Dec. 31, 2020

For 2021, 2022 & 2023 Ending Inventories Increase by One-Third of Liquidation Amount & at 12/31/23 Inventory Is at Pre-Liquidation Level

	2018	2019	2020	2021	2022	2023
A. Beginning-of-year inventory at base date cost	32,944,328	41,492,667	28,797,109	17,693,792	21,013,720	24,248,977
B. End-of-year inventory at end-of-year (current) prices	54,086,107	38,256,910 *	23,800,000	28,618,970	33,437,940	38,256,910 *
C. End-of-year inventory at beginning of year (base prices)	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced
D. Current Year Price Index: End of year inventory priced at end-of-year prices (divided by) / End of year inventory priced at beginning-of-year prices	1.014530	1.019170	1.012500	1.012500	1.012500	1.012500
E. Cumulative link-chain index: Current-year price index (Line D) multiplied by (x)						
Prior year's cumulative index (Line E of prior year)	1.303510	1.328498	1.345105	1.361918	1.378942	1.396179
F. End-of-year inventory at base date cost (Line B divided by Line E)	41,492,667	28,797,109	17,693,792	21,013,720	24,248,977	27,401,148
G. Current year inventory increase (decrease) - Expressed in base dollars						
1. End-of-year inventory at base date cost (Line F)	41,492,667	28,797,109	17,693,792	21,013,720	24,248,977	27,401,148
2. Beginning-of-year inventory at base date cost (Line A)	32,944,328	41,492,667	28,797,109	17,693,792	21,013,720	24,248,977
3. Current-year increment (G(1) exceeds G(2)) or decrease (if G(2) exceeds G(1))	8,548,339	(12,695,558)	(11,103,317)	3,319,927	3,235,257	3,152,171
	x 1.303510	x -	x -	1.361918	x 1.378942	x 1.396179
4. LIFO valuation of current-year increment (If G(1) exceeds G(2), multiply Line G(3) by Line E)	11,142,846	N/A	N/A	4,521,470	4,461,233	4,400,996

H. Analysis of Year-End Inventory LIFO "Layers"

Calendar Year 2018

	Base Dollars		*Valuation Factor*	
Calendar Year 1985	2,279,795	x	0.517470	1,179,726
Calendar Year 1992	917,975	x	0.649710	596,418
Calendar Year 1994	527,962	x	0.708260	373,934
Calendar Year 1995	466,372	x	0.737590	343,991
Calendar Year 1996	48,996	x	0.752690	36,879
Calendar Year 1997	525,898	x	0.775950	408,071
Calendar Year 1999	2,257,479	x	0.830310	1,874,407
Calendar Year 2000	151,649	x	1.016410	154,138
Calendar Year 2001	1,033,581	x	0.850860	879,433
Calendar Year 2002	1,354,753	x	0.880270	1,192,548
Rebased as of 12/31/06	0	x	1.000000	-
* Subtotal - All Prior Years	9,564,460			7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	3,712,422	x	1.197870	4,446,999
Calendar Year 2014	56,248	x	1.217070	68,458
Calendar Year 2016	1,113,883	x	1.274250	1,419,365
Calendar Year 2018	8,548,339	x	1.303510	11,142,845
	41,492,667			45,249,699

38,256,910	12/31/19 Pre-liquidation level
(23,800,000)	12/31/20 Post-liquidation level
14,456,910	Difference - Liquidation amount
÷ 3	
4,818,970	Annual increase in inventory level
28,618,970	12/31/2021 level
33,437,940	12/31/2022 level
38,256,910	12/31/2023 level

Calendar Year 2019

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	10,587,533	x	1.154570	12,224,048
Calendar Year 2013	735,297	x	1.197870	880,790
	28,797,072			29,052,822

Calendar Year 2020

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	219,550	x	1.154570	253,486
	17,693,792			16,201,470

Calendar Year 2021

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	219,550	x	1.154570	253,486
Calendar Year 2021	3,319,927	x	1.361918	4,521,469
	21,013,719			20,722,939

Calendar Year 2022

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	219,550	x	1.154570	253,486
Calendar Year 2021	3,319,927	x	1.361918	4,521,469
Calendar Year 2022	3,235,247	x	1.378942	4,461,219
	24,248,966			25,184,158

Calendar Year 2023

	Base Dollars		*Valuation Factor*	
* Subtotal - All Prior Years	9,564,460	x	-	7,039,544
Calendar Year 2010	3,962,960	x	1.119410	4,436,177
Calendar Year 2011	3,946,822	x	1.133130	4,472,262
Calendar Year 2012	219,550	x	1.154570	253,486
Calendar Year 2021	3,319,927	x	1.361918	4,521,469
Calendar Year 2022	3,235,247	x	1.378942	4,461,219
Calendar Year 2023	3,152,171	x	1.396179	4,400,996
	27,401,137			29,585,154

	2018	2019	2020	2021	2022	2023
Ending Inventory at LIFO Valuation, per Above	45,249,699	29,052,822	16,201,470	20,722,939	25,184,158	29,585,154
Less: Ending Inventory at End-of-Year Prices (Line B)	54,086,107	38,256,910	23,800,000	28,618,970	33,437,940	38,256,910
LIFO Reserve at End of the Year	8,836,408	9,204,088	7,598,530	7,896,031	8,253,782	8,671,756
LIFO Reserve at Beginning of Year	8,221,336	8,836,408	9,204,088	7,598,530	7,896,031	8,253,782
Net Increase (Decrease) in LIFO Reserve	615,072	367,680	(1,605,558)	297,501	357,751	417,974
Net Change Over 4 Years			(1,605,558)	297,501	357,751	417,974	(532,331) Net Change

† The calculations for 2020 reflect the actual ending inventory as of Dec. 31, 2020

Note: See accompanying schedules for proofs and reconciliations of (1) composition of the layers in the LIFO Reserve balances as of year-end and (2) components of the changes in the LIFO Reserve for the years indicated above.

XYZ, INC. - PROJECTIONS 1(e) ... USING ACTUAL COST AT DEC. 31, 2020

SUMMARY OF LIFO RESERVE BALANCES & ANALYSES OF NET INCREASE (DECREASE) IN LIFO RESERVE

FOR THE YEARS INDICATED BELOW

	2019	Actual Cost 2020	Projected 2021	Projected 2022	Projected 2023
LIFO Reserve at End of the Year	9,204,088	7,598,530	7,896,031	8,253,782	8,671,756
LIFO Reserve at Beginning of Year	8,836,408	9,204,088	7,598,530	7,896,031	8,253,782
Net Increase (Decrease) in LIFO Reserve	367,680	(1,605,558)	297,501	357,751	417,974

Analysis of Net Increase (Decrease) in LIFO Reserve	2019	Actual Cost 2020	Projected 2021	Projected 2022	Projected 2023
Increase in LIFO reserve due to inflation					
Cumulative index at end-of-year	1.328498	1.345105	1.361918	1.378942	1.396179
Cumulative index at beginning-of-year	(1.303510)	(1.328498)	(1.345105)	(1.361918)	(1.378942)
Difference - Effective rate of inflation	0.024988	0.016606	0.016814	0.017024	0.017237
Lower of beginning-of-year or end-of-year inventory expressed in base dollars	28,797,109	17,693,792	17,693,792	21,013,720	24,248,977
Increase in LIFO reserve due to inflation	719,590	293,827	297,501	357,737	417,974
Decrease due to payback (reduction in LIFO reserve) caused by the carry back of the decrement against prior years' layers (per schedule below)	(351,959) *	(1,899,336) †	0 **	0 ††	0 ***
Rounding	49	(49)		14	
Net increase (decrease) in LIFO reserve at year-end	367,680	(1,605,558)	297,501	357,751	417,974

2019 L/R Payback Due to Decrement in Base Dollars

	Base Dollars		Amount Contributed to LIFO Reserve at Dec. 31, 2018		LIFO Reserve Recapture
December 31, 2013 Layer	2,977,125	x	0.10564	(1.30351 - 1.19787) =	314,505
December 31, 2014 Layer	56,248	x	0.08644	(1.30351 - 1.21707) =	4,862
December 31, 2016 Layer	1,113,883	x	0.02926	(1.30351 - 1.27425) =	32,592
December 31, 2018 Layer	8,548,339	x	0	(1.30351 - 1.30351) =	0
	12,695,595			Per Above	351,959 *
	(37)				
Per schedule	12,695,558				

2020 L/R Payback Due to Decrement in Base Dollars

			Amount Contributed to LIFO Reserve at Dec. 31, 2019		
December 31, 2012 Layer	10,367,983	x	0.173928	(1.328498 - 1.154570) =	1,803,284
December 31, 2013 Layer	735,297	x	0.130628	(1.328498 - 1.197870) =	96,052
	11,103,280			Per Above	1,899,336
	37				-
Per schedule	11,103,317				1,899,336 †

2021 There is no payback because the computations reflect an increment (and not a decrement)

2021 L/R Payback Due to Decrement in Base Dollars - Not Applicable

			Amount Contributed to LIFO Reserve at Dec. 31, 2020		
		x			
Per schedule	-			Per Above	- **

2022 There is no payback because the computations reflect an increment (and not a decrement)

2022 L/R Payback Due to Decrement in Base Dollars - Not Applicable

			Amount Contributed to LIFO Reserve at Dec. 31, 2021		
		x			
Per schedule	-			Per Above	- ††

2023 There is no payback because the computations reflect an increment (and not a decrement)

2023 L/R Payback Due to Decrement in Base Dollars - Not Applicable

			Amount Contributed to LIFO Reserve at Dec. 31, 2022		
		x			
Per schedule	-			Per Above	- ***

Note: All rounding dollar amounts are due to differences in the display of decimal calculations.

XYZ, Inc. - Projections 1(e) ... Using Actual Cost Dec. 31, 2020

Composition of LIFO Inventory Pool & Contribution Made by Each Layer to the LIFO Reserve

For the Years Indicated Below

Calendar Year 2020 Actual Inventory				***Composition & Proof of LIFO Reserve as of Dec. 31, 2020***		
	Base Dollars	***Valuation Factor***	***LIFO Valuation***	***Base Dollars***	***Proof Factor***	***Composition of LIFO Reserve***
Analysis of Year-End LIFO Inventory Layers						
Calendar Year 1985	2,279,795	0.517470	1,179,726	2,279,795	0.827635	1,886,838
Calendar Year 1992	917,975	0.649710	596,418	917,975	0.695395	638,355
Calendar Year 1994	527,962	0.708260	373,934	527,962	0.636845	336,230
Calendar Year 1995	466,372	0.737590	343,991	466,372	0.607515	283,328
Calendar Year 1996	48,996	0.752690	36,879	48,996	0.592415	29,026
Calendar Year 1997	525,898	0.775950	408,071	525,898	0.569155	299,317
Calendar Year 1999	2,257,479	0.830310	1,874,407	2,257,479	0.514795	1,162,139
Calendar Year 2000	151,649	1.016410	154,138	151,649	0.328695	49,846
Calendar Year 2001	1,033,581	0.850860	879,433	1,033,581	0.494245	510,842
Calendar Year 2002	1,354,753	0.880270	1,192,548	1,354,753	0.464835	629,737
Rebased as of 12/31/06	-	-	-	-	-	-
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.609094	5,825,659
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.225695	894,420
Calendar Year 2011	3,946,822	1.133130	4,472,262	3,946,822	0.211975	836,628
Calendar Year 2012	219,550	1.154571	253,486	219,550	0.190534	41,832
Cumulative Index as of Dec. 31, 2020		1.345105		-		-
			-			(8)
Totals	17,693,792		16,201,470	17,693,792		7,598,530
Ending Inventory at LIFO Valuation			16,201,470			
Less: Ending Inventory at Current Cost			23,800,000			
LIFO Reserve at End of Year - Dec. 31, 2020			7,598,530			

Calendar Year 2023 Actual Inventory - Projected				***Composition & Proof of LIFO Reserve as of Dec. 31, 2023***		
	Base Dollars	***Valuation Factor***	***LIFO Valuation***	***Base Dollars***	***Proof Factor***	***Composition of LIFO Reserve***
Analysis of Year-End LIFO Inventory Layers						
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.660168	6,314,154
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.276769	1,096,824
Calendar Year 2011	3,946,822	1.133130	4,472,262	3,946,822	0.263049	1,038,208
Calendar Year 2012	219,550	1.154571	253,486	219,550	0.241608	53,045
Calendar Year 2021	3,319,927	1.361918	4,521,469	3,319,927	0.034261	113,743
Calendar Year 2022	3,235,247	1.378942	4,461,219	3,235,247	0.017237	55,765
Calendar Year 2023	3,152,171	1.396179	4,400,996	3,152,171	(0.000000)	(0)
Cumulative Index as of Dec. 31, 2023		1.396179		-		-
			1			16
Totals	27,401,137		29,585,154	27,401,137		8,671,756
Ending Inventory at LIFO Valuation			29,585,154			
Less: Ending Inventory at Current Cost			38,256,910			
LIFO Reserve at End of Year - Dec. 31, 2023			8,671,756			

Note: All annual historical layers retain their individual status. The subtotal for "all prior years" simply shows the average rate, and this is reflected in the computational schedules to avoid repeating all of the individual detail by years. All rounding dollar amounts are due to differences in the display of decimal calculations.

XYZ, Inc. - 2(e)

2(e): Three-Year Projection of LIFO Inventories - Based on Substitute Inventory Amount for Dec. 31, 2020

For 2021, 2022 & 2023 Ending Inventories Increase Each Year by One-Third of Liquidation Amount & at 12/31/23 Inventory Is at Pre-Liquidation Level

	2018	2019	2020 Substitute Cost	2021	2022	2023
A. Beginning-of-year inventory at base date cost	32,944,328	41,492,667	28,797,109	33,373,170	21,013,720	24,248,977
B. End-of-year inventory at end-of-year (current) prices	54,086,107	38,256,910	44,890,402	28,618,970	33,437,940	38,256,910
C. End-of-year inventory at beginning of year (base prices)	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced	Not fully Repriced
D. Current Year Price Index: End of year inventory priced at end-of-year prices (divided by) Ratio of: End of year inventory priced at beginning-of-year prices	1.014530	1.019170	1.012500	1.012500	1.012500	1.012500
E. Cumulative link-chain index: Current-year price index (Line D) multiplied by (x) Prior year's cumulative index (Line E of prior year)	1.303510	1.328498	1.345105	1.361918	1.378942	1.396179
F. End-of-year inventory at base date cost (Line B divided by Line E)	41,492,667	28,797,109	33,373,170	21,013,720	24,248,977	27,401,148
G. Current year inventory increase (decrease) - Expressed in base dollars						
1. End-of-year inventory at base date cost (Line F)	41,492,667	28,797,109	33,373,170	21,013,720	24,248,977	27,401,148
2. Beginning-of-year inventory at base date cost (Line A)	32,944,328	41,492,667	28,797,109	33,373,170	21,013,720	24,248,977
3. Current-year increment (G(1) exceeds G(2)) or decrease (if G(2) exceeds G(1))	8,548,339	(12,695,558)	4,576,061	(12,359,450)	3,235,257	3,152,171
	x 1.303510	x -	x 1.345105	-	x 1.378942	x 1.396179
4. LIFO valuation of current-year increment (If G(1) exceeds G(2), multiply Line G(3) by Line E)	11,142,846	N/A	6,155,281	N/A	4,461,233	4,400,996
H. Analysis of Year-End Inventory LIFO "Layers"						
Calendar Year 1985	1,179,726		38,256,910	12/31/19 Pre-liquidation level		
Calendar Year 1992	596,418		(23,800,000)	12/31/20 Post-liquidation level		
Calendar Year 1994	373,934		14,456,910	Difference - Liquidation amount		
Calendar Year 1995	343,991		÷ 3			
Calendar Year 1996	36,879		4,818,970	Annual increase in inventory level		
Calendar Year 1997	408,071		28,618,970	12/31/2021 level		
Calendar Year 1999	1,874,407		33,437,940	12/31/2022 level		
Calendar Year 2000	154,138		38,256,910	12/31/2023 level		
Calendar Year 2001	879,433					
Calendar Year 2002	1,192,548					
Rebased as of 12/31/06	-					
** Subtotal - All Prior Years	7,039,544					
Calendar Year 2010	4,436,177					
Calendar Year 2011	4,472,262					
Calendar Year 2012	12,224,048					
Calendar Year 2013	4,446,999					
Calendar Year 2014	68,458					
Calendar Year 2016	1,419,365					
Calendar Year 2018	11,142,845					
	45,249,699					

Calendar Year 2018 - Based on Actual Cost

	Base Dollars		Valuation Factor
Calendar Year 1985	2,279,795	x	0.517470
Calendar Year 1992	917,975	x	0.649710
Calendar Year 1994	527,962	x	0.708260
Calendar Year 1995	466,372	x	0.737590
Calendar Year 1996	48,996	x	0.752690
Calendar Year 1997	525,898	x	0.775950
Calendar Year 1999	2,257,479	x	0.830310
Calendar Year 2000	151,649	x	1.016410
Calendar Year 2001	1,033,581	x	0.850860
Calendar Year 2002	1,354,753	x	0.880270
Rebased as of 12/31/06	0	x	1.000000
** Subtotal - All Prior Years	9,564,460		
Calendar Year 2010	3,962,960	x	1.119410
Calendar Year 2011	3,946,822	x	1.133130
Calendar Year 2012	10,587,533	x	1.154570
Calendar Year 2013	3,712,422	x	1.197870
Calendar Year 2014	56,248	x	1.217070
Calendar Year 2016	1,113,883	x	1.274250
Calendar Year 2018	8,548,339	x	1.303510
	41,492,667		

Calendar Year 2019 - Based on Actual Cost

	Base Dollars		Valuation Factor		
** Subtotal - All Prior Years	9,564,460	x	-	7,039,544	
Calendar Year 2010	3,962,960	x	1.119410	4,436,177	
Calendar Year 2011	3,946,822	x	1.133130	4,472,262	
Calendar Year 2012	10,587,533	x	1.154570	12,224,048	
Calendar Year 2013	735,297	x	1.197870	880,790	
	28,797,072			29,052,822	

Calendar Year 2020 - Substitute Cost

	Base Dollars		Valuation Factor			
** Subtotal - All Prior Years	9,564,460	x	-	7,039,544		
Calendar Year 2010	3,962,960	x	1.119410	4,436,177		
Calendar Year 2011	3,946,822	x	1.133130	4,472,262		
Calendar Year 2012	10,587,533	x	1.154570	12,224,048		
Calendar Year 2013	735,297	x	1.197870	880,790		
Calendar Year 2020	4,576,061	x	1.345105	6,155,280		
	33,373,133			35,208,102		

Calendar Year 2021 - Substitute Cost

	Base Dollars		Valuation Factor			
** Subtotal - All Prior Years	9,564,460	x	-		7,039,544	
Calendar Year 2010	3,962,960	x	1.119410		4,436,177	
Calendar Year 2011	3,946,822	x	1.133130		4,472,262	
Calendar Year 2012	3,539,478	x	1.154570		4,086,575	
Calendar Year 2013		x			-	
Calendar Year 2020		x			-	
	21,013,720				20,034,559	

Calendar Year 2022 - Substitute Cost

	Base Dollars		Valuation Factor				
** Subtotal - All Prior Years	9,564,460	x	-			7,039,544	
Calendar Year 2010	3,962,960	x	1.119410			4,436,177	
Calendar Year 2011	3,946,822	x	1.133130			4,472,262	
Calendar Year 2012	3,539,478	x	1.154570			4,086,575	
Calendar Year 2013		x				-	
Calendar Year 2020		x				-	
Calendar Year 2022	3,235,257	x	1.3789423			4,461,233	
	24,248,977					24,495,792	

Calendar Year 2023 - Substitute Cost

	Base Dollars		Valuation Factor					
** Subtotal - All Prior Years	9,564,460	x	-				7,039,544	
Calendar Year 2010	3,962,960	x	1.119410				4,436,177	
Calendar Year 2011	3,946,822	x	1.133130				4,472,262	
Calendar Year 2012	3,539,478	x	1.154570				4,086,575	
Calendar Year 2013		x					-	
Calendar Year 2020		x					-	
Calendar Year 2022	3,235,257	x	1.3789423				4,461,233	
Calendar Year 2023	3,152,171	x	1.3961791				4,400,995	
	27,401,148						28,896,787	

Ending Inventory at LIFO Valuation, per Above	45,249,699	29,052,822	35,208,102	20,034,559	24,495,792	28,896,787	
Less: Ending Inventory at End-of-Year Prices (Line B)	54,086,107	38,256,910	44,890,402	28,618,970	33,437,940	38,256,910	
LIFO Reserve at End of the Year	8,836,408	9,204,088	9,682,300	8,584,411	8,942,148	9,360,123	
LIFO Reserve at Beginning of Year	8,221,336	8,836,408	9,204,088	9,682,300	8,584,411	8,942,148	
Net Increase (Decrease) in LIFO Reserve	615,072	367,680	478,212	(1,097,889)	357,737	417,975	
Net Change Over 4 Years			478,212	(1,097,889)	357,737	417,975	156,035 Net Change

† The calculations for 2020 reflect the 3-year historical average of ending inventory costs (Dec. 31, 2017 - 2019) - substitute cost replaces actual cost - as of Dec. 31, 2020.

* Actual cost of Dec. 31, 2020 inventory is $23,800,000. This is $21,090,402 less than the substitute cost ($44,890,402).

** The subtotal for all prior years 1985 through calendar year 2009.

Note: See accompanying schedules for proofs and reconciliations of (1) composition of the layers in the LIFO Reserve balances as of year-end and (2) components of the changes in the LIFO Reserve for the years indicated above.

XYZ, INC. - PROJECTIONS 2(e) ... USING SUBSTITUTE COST AT DEC. 31, 2020

SUMMARY OF LIFO RESERVE BALANCES & ANALYSES OF NET INCREASE (DECREASE) IN LIFO RESERVE

FOR THE YEARS INDICATED BELOW

	2019	Substitute Cost 2020	Projected 2021	Projected 2022	Projected 2023
LIFO Reserve at End of the Year	9,204,088	9,682,300	8,584,411	8,942,148	9,360,123
LIFO Reserve at Beginning of Year	8,836,408	9,204,088	9,682,300	8,584,411	8,942,148
Net Increase (Decrease) in LIFO Reserve	367,680	478,212	(1,097,889)	357,737	417,975

Analysis of Net Increase (Decrease) in LIFO Reserve	2019	Substitute Cost 2020	Projected 2021	Projected 2022	Projected 2023
Increase in LIFO reserve due to inflation					
Cumulative index at end-of-year	1.328498	1.345105	1.361918	1.378942	1.396179
Cumulative index at beginning-of-year	(1.303510)	(1.328498)	(1.345105)	(1.361918)	(1.378942)
Difference - Effective rate of inflation	0.024988	0.016606	0.016814	0.017024	0.017237
Lower of beginning-of-year or end-of-year inventory expressed in base dollars	28,797,109	28,797,109	21,013,720	21,013,720	24,248,977
Increase in LIFO reserve due to inflation	719,590	478,212	353,321	357,737	417,975
Decrease due to payback (reduction in LIFO reserve) caused by the carry back of the decrement against prior years' layers (per schedule below)	(351,959) *	0 †	(1,451,210) **	0 ††	0 ***
Rounding	49				
Net increase (decrease) in LIFO reserve at year-end	367,680	478,212	(1,097,889)	357,737	417,975

2019 L/R Payback Due to Decrement in Base Dollars

	Base Dollars		*Amount Contributed to LIFO Reserve at Dec. 31, 2018*		*LIFO Reserve Recapture*
December 31, 2013 Layer	2,977,125	x	0.10564	(1.30351 - 1.19787) =	314,505
December 31, 2014 Layer	56,248	x	0.08644	(1.30351 - 1.21707) =	4,862
December 31, 2016 Layer	1,113,883	x	0.02926	(1.30351 - 1.27425) =	32,592
December 31, 2018 Layer	8,548,339	x	0	(1.30351 - 1.30351) =	0
	12,695,595			Per Above	351,959 *
	(37)				
Per schedule	12,695,558				

2020 There is no payback because the computations reflect an increment (and not a decrement)

2020 L/R Payback Due to Decrement in Base Dollars - Not Applicable

			Amount Contributed to LIFO Reserve at Dec. 31, 2019		
		x			
Per schedule	-			Per Above	- †

2021 L/R Payback Due to Decrement in Base Dollars

			Amount Contributed to LIFO Reserve at Dec. 31, 2020		
December 31, 2012 Layer	7,048,092	x	0.190535	(1.345105 - 1.154570) =	1,342,908
December 31, 2013 Layer	735,297	x	0.147235	(1.345105 - 1.197870) =	108,261
December 31, 2020 Layer	4,576,061	x	0	(1.345105 - 1.345105) =	0
	12,359,450				1,451,170
	-				40
Per schedule	12,359,450			Per Above	1,451,210 **

2022 There is no payback because the computations reflect an increment (and not a decrement)

2022 L/R Payback Due to Decrement in Base Dollars - Not Applicable

			Amount Contributed to LIFO Reserve at Dec. 31, 2021		
		x			
Per schedule	-			Per Above	- ***

2023 There is no payback because the computations reflect an increment (and not a decrement)

2023 L/R Payback Due to Decrement in Base Dollars - Not Applicable

			Amount Contributed to LIFO Reserve at Dec. 31, 2022		
		x			
Per schedule	-			Per Above	- ***

Note: All rounding dollar amounts are due to differences in the display of decimal calculations.

XYZ, Inc. - Projections 2(e) ... Using Substitute Cost Dec. 31, 2020

Composition of LIFO Inventory Pool & Contribution Made by Each Layer to the LIFO Reserve

For the Years Indicated Below

Calendar Year 2020 Substitute Inventory Cost
(Average 2017, 2018 & 2019)

Analysis of Year-End LIFO Inventory Layers	*Base Dollars*	*Valuation Factor*	*LIFO Valuation*	*Composition & Proof of LIFO Reserve as of Dec. 31, 2020 - Substitute Cost*		
				Base Dollars	*Proof Factor*	*Composition of LIFO Reserve*
Calendar Year 1985	2,279,795	0.517470	1,179,726	2,279,795	0.827635	1,886,838
Calendar Year 1992	917,975	0.649710	596,418	917,975	0.695395	638,355
Calendar Year 1994	527,962	0.708260	373,934	527,962	0.636845	336,230
Calendar Year 1995	466,372	0.737590	343,991	466,372	0.607515	283,328
Calendar Year 1996	48,996	0.752690	36,879	48,996	0.592415	29,026
Calendar Year 1997	525,898	0.775950	408,071	525,898	0.569155	299,317
Calendar Year 1999	2,257,479	0.830310	1,874,407	2,257,479	0.514795	1,162,139
Calendar Year 2000	151,649	1.016410	154,138	151,649	0.328695	49,846
Calendar Year 2001	1,033,581	0.850860	879,433	1,033,581	0.494245	510,842
Calendar Year 2002	1,354,753	0.880270	1,192,548	1,354,753	0.464835	629,737
Rebased as of 12/31/06	-	-	-	-	-	-
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.609094	5,825,659
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.225695	894,420
Calendar Year 2011	3,946,822	1.133130	4,472,262	3,946,822	0.211975	836,628
Calendar Year 2012	10,587,533	1.154570	12,224,048	10,587,533	0.190535	2,017,296
Calendar Year 2013	735,297	1.197870	880,790	735,297	0.147235	108,262
Calendar Year 2020	4,576,061	1.345105	6,155,280	4,576,061	(0.000000)	-
Cumulative Index as of Dec. 31, 2020		1.345105		-	-	-
			-			36
Totals	33,373,133		35,208,102	33,373,133		9,682,300
Ending Inventory at LIFO Valuation			35,208,102			
Less: Ending Inventory at Current Cost			44,890,402			
LIFO Reserve at End of Year - Dec. 31, 2020			9,682,300			

Calendar Year 2023 Substitute Inventory - Projected

Analysis of Year-End LIFO Inventory Layers	*Base Dollars*	*Valuation Factor*	*LIFO Valuation*	*Composition & Proof of LIFO Reserve as of Dec. 31, 2023*		
				Base Dollars	*Proof Factor*	*Composition of LIFO Reserve*
* Subtotal - All Prior Years	9,564,460	0.736011	7,039,544	9,564,460	0.660168	6,314,154
Calendar Year 2010	3,962,960	1.119410	4,436,177	3,962,960	0.276769	1,096,824
Calendar Year 2011	3,946,822	1.133130	4,472,262	3,946,822	0.263049	1,038,208
Calendar Year 2012	3,539,478	1.154570	4,086,575	3,539,478	0.241609	855,170
Calendar Year 2022	3,235,257	1.378942	4,461,233	3,235,257	0.017237	55,765
Calendar Year 2023	3,152,171	1.396179	4,400,995	3,152,171	(0.000000)	(0)
Cumulative Index as of Dec. 31, 2023		1.396179		-		-
			1			2
Totals	27,401,148		28,896,787	27,401,148		9,360,123
Ending Inventory at LIFO Valuation			28,896,787			
Less: Ending Inventory at Current Cost			38,256,910			
LIFO Reserve at End of Year - Dec. 31, 2023			9,360,123			

Note: All annual historical layers retain their individual status. The subtotal for "all prior years" simply shows the average rate, and this is reflected in the computational schedules to avoid repeating all of the individual detail by years. All rounding dollar amounts are due to differences in the display of decimal calculations.