DEPARTMENT OF THE TREASURY
INTERNAL REVENUE SERVICE
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INTERNAL REVENUE SERVICE NATIONAL OFFICE FIELD SERVICE ADVICE

MEMORANDUM FOR

FROM: Deborah A. Butler
Assistant Chief Counsel (Field Service) CC:DOM:FS

SUBJECT: Inventory Price Index Computation Method

This Field Service Advice responds to your memorandum dated July 14, 1999. Field Service Advice is not binding on Examination or Appeals and is not a final case determination. This document is not to be cited as precedent.

LEGEND:

Taxpayer =
Tax Year 1 =
X =

ISSUES:

1. Whether Taxpayer may weight its Inventory Price Index Computation (IPIC) method category indexes (to determine its pool index) using end of the year inventory value.

2. Whether under its IPIC method Taxpayer must use a double-extension method or can use a link-chain method in computing the last-in, first-out (LIFO) value of its dollar-value pools.

CONCLUSIONS:

1. Taxpayer may weight its IPIC method category indexes using end of the year inventory value.

2. In conjunction with its IPIC method, Taxpayer may continue to use the

link-chain method to compute the LIFO value of its pools.

FACTS:

Taxpayer is a retailer/grocer which employs an overall accrual method of accounting. Taxpayer does not qualify as an eligible small business as defined in I.R.C. § 474. In Tax Year 1, Taxpayer was permitted to change its method of accounting for its inventories to the IPIC method set forth in Treas. Reg. § 1.472-8(e)(3). Taxpayer has X categories of inventory items to which it applies the Consumer Price Index (CPI). Prior to the change, Taxpayer used a dollar-value, link-chain method pooled by line, type or class of goods under Treas. Reg. § 1.472-8(c).

When making calculations under the IPIC method, Taxpayer first computes inflation by category by dividing the current-year's CPI (after adjustments) by the beginning of the year CPI (also after adjustments). Taxpayer then multiplies the resulting inflation for the category by the dollars in ending inventory for that category. Taxpayer sums up the result for all X categories. Taxpayer then divides the total inventory at current costs by the sum of this multiplication to arrive at the current year's index for the pool.

In addition, in determining the current-year and base-year cost of each of its dollar-value, IPIC inventory pools, Taxpayer uses the link-chain method.

LAW AND ANALYSIS:

Treas. Reg. 1.471-1 requires, in order to clearly reflect income, that taxpayers who have merchandise which is an income-producing factor take and keep inventories. Being a retailer, Taxpayer's merchandise is a significant income-producing factor in its business. Accordingly, Taxpayer takes and keeps inventories.

Treas. Reg. § 1.472-1(a) permits taxpayers who take inventories pursuant to the provisions of I.R.C. § 471 to elect to compute its inventory in accordance with the method provided in I.R.C. § 472, the LIFO method.

Treas. Reg. § 1.472-8 provides that taxpayers may elect to determine the cost of their LIFO inventories under the dollar-value LIFO method, provided such method is used consistently and clearly reflects the taxpayer's income.

Treas. Reg. § 1.472-8(e) describes the methods available for computing the LIFO value of a dollar value pool: (1) the double-extension method, (2) an index method, (3) the link-chain method. In addition, a taxpayer may use the IPIC method which relies on external indexes rather than internally-developed indexes.

Treas. Reg. § 1.472-8(e)(2) provides that, under the double-extension method, the quantity of each item in the inventory pool at the close of the taxable year is extended at both base-year unit cost and current-year unit cost. The respective extensions at the two costs are then each totaled. The first total gives the amount of inventory in terms of base-year costs and the second total gives the amount of such inventory in terms of current-year costs. If there is an increment in terms of base-year cost, that increment is valued by multiplying the increment by the ratio of total base-year cost to total current-year cost.

Treas. Reg. § 1.472-8(e)(3) permits taxpayer to elect to use the IPIC method as a method to determine the inventory price indexes. For taxpayers electing the IPIC method, the method will be accepted by the Commissioner as an appropriate method of computing an index, and the use of such method to compute the LIFO value of a dollar-value inventory pool will be accepted as accurate, reliable and suitable.

In general, Treas. Reg. § 1.472-8(e)(3) provides that, under the IPIC method, inventory price indexes are computed with reference to consumer or producer price indexes. The inventory items in each pool are classified according to the detailed listings in the appropriate tables of either the consumer or producer price index. The inventory items are assigned to various categories, and index categories are assigned to a pool or pools. Published indexes and weights are used to compute the appropriate index for an index category, and then an index is computed for the pool. See Rev. Proc. 84-57, 1984-2 C.B. 496, Section 2.05; Rev. Proc. 98-49, 1998-37 I.R.B. 9 (Sept. 14, 1998), Section 2.

Treas. Reg. § 1.472-8(e)(3)(ii) provides that an inventory price index computed under the IPIC method shall be a stated percentage of the percent change in the selected consumer (or producer) price index or indexes for a specific category or categories of goods. In computing an index for a pool, the taxpayer will weight the appropriate indexes for the separate index categories comprising the pool according to the taxpayer's actual inventory weights for such separate index categories. Treas. Reg. § 1. 472-8(e)(3)(iii)(B)(5). Because Taxpayer does not qualify as an eligible small business as defined in I.R.C. § 474, the stated percentage for Taxpayer shall be 80 percent of the percent change in the pool index.

Sec. 3.01 1 of Rev. Proc. 84-57 restates the requirement that inventory items have to be categorized into index categories chosen from the published consumer of producer price indexes (for Taxpayer, it is the consumer price index). Sec. 3.04 1 restates that if it is necessary to select more than one inventory category for an inventory pool, then the pool index is the weighted average of the indexes for the index categories in the pool. The weighted average is computed with reference to the relative weighted amounts of costs in the inventory pool for each index category of goods. The costs to be used in computing the weighted average must be the relative current costs in ending inventory.

Issue 1

When making calculations under the IPIC method, Taxpayer first computes inflation by category by dividing the current-year's CPI (after adjustments) by the beginning of the year CPI (also after adjustments). Taxpayer then multiplies the resulting inflation for the category by the dollars in ending inventory for that category. Taxpayer sums up the result for all X categories. Taxpayer then divides the total inventory at current costs by the sum of this multiplication to arrive at the current year's index for the pool. This is computing a weighted arithmetic mean based on end of the year costs.

Treas. Reg. § 1.472-8(e)(2), providing the general rules for dollar-value LIFO calculations, requires double-extension of item categories. Under LIFO methods that compute an internal index (double-extension of link-chain), the index computation procedure automatically produces an appropriately weighted pool index. However, when a taxpayer computes a LIFO pool index using externally generated inflation rates, as under IPIC, the taxpayer must weight the inflation rates to compute an appropriate composite pool index. Treas. Reg. § 1.472-8(e)(3)(ii) requires relative current-year costs be used to weight the applicable index. The regulation does not state whether to use an arithmetic mean or a harmonic mean to average the various indexes. Absent a preference expressed in the regulations, we believe that the regulation permits the use of a weighted arithmetic mean based upon dollars in ending inventory. The Service's pronouncements in this area, Rev. Proc. 84-57 and Rev. Proc. 98-49, are consistent with this interpretation. Accordingly, Taxpayer's method of determining its pool index by using weighted arithmetic mean is permissible.

Issue 2

Treas. Reg. § 1.472-8(e) states that ordinarily a taxpayer may only use the double-extension method for computing the base-year and current-year cost of a dollar-value inventory pool. However, where the double-extension method is impractical, a taxpayer may use an index method. A third method, the link-chain method, is also authorized where the taxpayer can demonstrate that the use of the double-extension or index method is impractical or unsuitable in view of the nature of the pool. Treas. Reg. § 1.472-8(e)(3) permits the use of the IPIC method as a type of index method, relying on external indexes rather than internally-developed indexes.

Accordingly, although the IPIC method is an additional and simplified method of using an external index (rather than an internal index), whether the ultimate price index is determined using the double-extension or link-chain method is still at issue. The stated preference in the regulations is for the double-extension method. Furthermore, there are fewer distortions with the double-extension method used with the IPIC method than there are with the link-chain method.

Because the base-year and current-year indexes are published monthly by the Bureau of Labor Statistics, it is relatively simple to double-extend under the IPIC method. Furthermore, because the indexes are external, base-year cost reconstruction can invariably be accomplished using the double-extension method. Finally, distortions from errors in the index or changes in product mix are reduced by using the double-extension method rather than the link-chain method in conjunction with the IPIC method.

On the other hand, although there are arguments favoring using the double-extension method, there are no Service pronouncements specifically prohibiting using the link-chain method with the IPIC method. Accordingly, under the facts of this situation, we would not disturb Taxpayer's use of the link-chain method to compute the LIFO value of its pools.

If you have any further questions, please call 202 622-7900.

Deborah A. Butler
Assistant Chief Counsel (Field Service)

By: ____________________________
THOMAS D. MOFFITT
Senior Technician Reviewer
CC:DOM:FS:IT&A