A Note on Estimating the Economic Impact of the LIFO Method of Inventory Valuation

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During times of inflation, the use of the last-in, first-out (LIFO) method of inventory valuation has the effect of lowering the reported earnings by excluding inventory holding gains from this number. Current income tax payments due on the reduced earnings are also lower. Taxes payable on inventory holding gains, therefore, are postponed until some future period when the inventory is liquidated. Thus, the economic consequence of using LIFO in the presence of inflation, is to increase the current net cash flow of the firm. Since the value of a business entity can be represented as the discounted net present value of future cash flows, a change to LIFO also implies a change in the value of the firm, which is positive during inflation and negative during deflation. This paper presents a simple, easy-to-use model to estimate the economic effect of the adoption and use of LIFO on the value of a firm. This model can be used by the management of a firm considering an accounting change to or from LIFO to evaluate the economic impact of such a change. The model also can be used by investors and security analysts to evaluate the change in the economic value of the firms which make such accounting changes.

Briefly, the economic effect of LIFO depends on the size of inventory, expected rate of inflation, the firm's cost of capital or discount rate and the marginal tax rate. Development of the model is followed by a brief discussion of its implementation.