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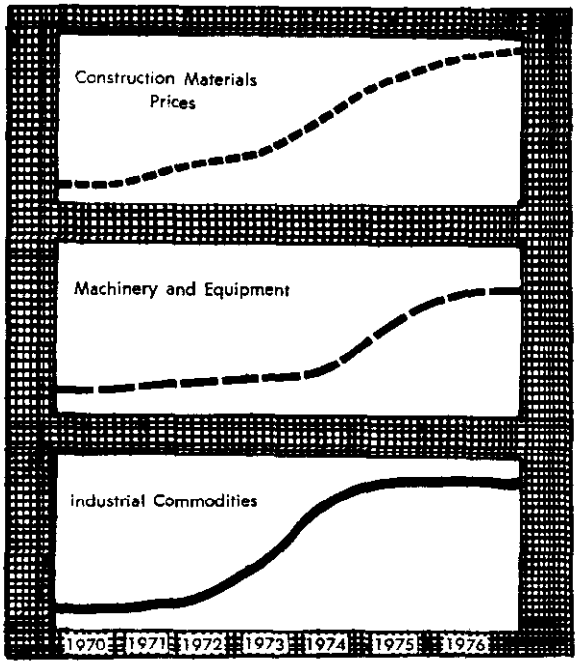
replacement cost accounting: highlighting the hidden costs of inflation

Paul H. Gross.

Just how much inflation has demaged the capital structure of the nation's largest businesses will soon be known. The SEC has directed more than 1,200 companies to estimate and report the current replacement cost of inventory and productive capacity. It's a task most dislike, but none can shirk.



PAUL H. GROSS

A *this late date, with barely 100 days till* the compliance deadline for calendar-year reporting companies, there are still chief executives and senior financial officers of large publicly held companies who haven't year read the SEC's replacement-cost disclosure requirements.

Issued last March 23, The Security and Exchange Commssion's Accounting Series Release No. 190 requires companies with property and inventories of $100 milion or more to report replacement cost data on plant and equipment, inventories, cost of sales, and depreciation. Some 1,200 firms presently qualify under this rule, and most (those with calendar-year registrations) now face a schedule something like this.

End of Fiscal year	December 31, 1976
Year-end closeout	Juanury 31, 1977 or earlier
Annual report to printer	February 20, 1977 or earlier
10-K to SEC	March 31, 1977

Two years hence financial managers and corporate executives in smaller companies probably will face similar deadlines.

To put the situation in smaller companies now charged with the effort of ASR-190 compliance need, at a minimum, to develop the current replacement cost of at least $100 million of productive assets (plant and equipment) and inventory, recalculate) depreciation-expense provisions, restate cost of goods sold, and prepare a disclosure statement. The key too getting the effort organized requires a comprehensive conception of the overall effort required.

What is required

Te significant numbers called for by te new rules are:

1. **How much it would a company to replace its inventories as of year end. If replacement** cost exceeds net realizable value, the company must so state and disclose the diference.

2. **The past year's cost of sales restated, using the replacement cost of inventory at the time it was sold —a method comparable to that** used in LIFO accounting.

3. **Year-end gross replacement cost of productive capacity.** (Assets held under financing leases must be included along with owned facilities.)

"EXAMPLE OF REPLACEMENT-COST DISCLOSURE UNDER SEC RULES"

1. Assume a machine unit was purchased in 1970 for $10,000 with an estimated normal life span of 10 years.

2. Direct inquiry of the vendor on October 1, 1976 indicates a selling price of $15,000 (freight and installetion excluded) as of January 1, 1976. However, a 3 percent increase in the price of unit has been announced effective December 31, 1976.

3. The in-use unit has a rated output of 1,000 units per day. Te replacement model, however, has been engineered to operate at higher speed, to a closer tolerance, and at a rated output of 1,500 units per day.

4. The annual straigt-line-depreciation provision on the existing machine is $1,000 ($10,000 cost divided by 10-year life).

5. ASR-190 indicates that calculation of the annual depreciation provision should be developed as follows:

	Cost on 1/1/76		Cost on 12/31/76
	$15,000		$15,450
Annual provision	1,500	+	1,545
Average annual provision	3,045 / 2 = 1,523		

The initial disclosure called for is that the straigh-line replacemetn-cost- depreciation provision exceed the historical-cost-basis provision by $523 ($1,523 — L1,00).

6. The incremental depreciation expense, when carried into a recalcuation of cost of goods sold, obviously impacts negatively on the corporation's gross profit if no cost-saving offset is considered.

7. In order not to be misleading, the following additional facts should be considered and disciosed:

	Daily Output (Units)	Cost Per Unit of Output($)
Replacement asset	1,500	1.00
Existing asset	1,000	1.50

The cost differential between the replacement model and the existing machine on December 31, 1976 is $5,450 ($15,450 - $10,000), or about 35 percent. The disclosure statement, therefore, should include a comment to the effect that:

> While current replacement cost of productive capacity indicates an additional investment of approximately 35 percent would be required to replace the company's asset, thereby increasing depreciation expense charged to operations by a like percentage, our best estimate is that the resulting operating efficiency derived from the newer asset would produce a cost saving of 33.3 percent, which is largely offsetting.

4. **Year-end depreciaten cost of productive capacity recalcuated on the basis of replacement cost.**

5. **The past year's depreciation expense calculated on the basis of average current replacement cost of productive capacity;** use straight-line depreciation and lives corresponding to tose used for existing assets.

Why replacement costs?

Simply stated, private industry is unable to fully repace its plant and machinery in the current inflationary economy under the present corporate tax structure. Dollars of annual depreciation claimed as expense against operations, when calculated on the basis of historical cost and lives assigned, are woefully inadequate to

replace productive assets in today's marketplace. The SEC believes that restating assets in replacement-cost dollars will give investors a better idea of the impact of inflation on the operations and financial satatus of business.

How reassessment can be accomplished

The major task under ASR-190 is development of replacement cost new and replacement cost less depreciation. With this in mind, financial management can begin the task within the following parameters:

1. Some latitude is afforded under the rules in that the SEC stated that an element of imprecision will be permited.

2. The true test of the information relating to replacement cost is that "it not be materially misleading."

3. By definition, then, the range of fixed assets for which replacement cost data must be developed is of such magnitude that available time may not permit accumulation of detail on an asset-by-asset basis.

". . .Corporate staff gets excited about the same things the boss does. The key to compliance success, therefore, will be dictated by the attitude of the chief executive officer."

Once the degree of data reliability in a company's property records has been established, a process of asset segregation may begin.

1. Start the process by identifying assets that management clearly knows will be replaced.

2. Thoroughly analyze the most recent additions to existing facilities. Common sense dictates that the constructon cost of the most recently built manufacturing, warehousing, and other plant provides a reliable indication of current replacement cost. Using these data, you can can develop a unit cost per square foot for recent reconstruction and apply it to all buildings that will be replaced.

3. Consider next all assets that have been unaffected by technological change and for which reproduction cost and replacement cost new are esentially identical. (The main difference between these two terms—reproduction versus replacement—is one of **reproducing substantially the identifical property versus replacing the service capacity of the existing property.)**

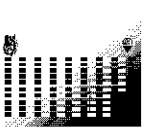
4. Analyze recent mayor machinery and equipment additions. Where possible, relate the cost to a unit measurement of production and apply it to corresponding facilities elsewhere in the company. For example.

   Can plants—cans per day
   Sawmils/veneer mills—board feet of lumber per day
   Bottle plants—units per day
   Theaters—constructions cost per seat
   Motels—construction cost per room

5. Finally, for large quantities of low-value assets, select an appropriate specific index. Properly interpreted, the wholesale price index, carried to at least te third digit, should provide sufficient refinement to reflect the specific type of machinery and equipment to be indexed.

Where indexing is used, care obviously must be exercised to correct or adjust entries in the property record that do not represent original cost—that is, assets acquired used or acquired in mergers and acquisition. These entries must be converted to an estimate of original cost before any indexation is done. In this kind of situation, it is often possible to develop, on a sampling basis, a relationship of new-to-used cost, restate existing records to cost new, and then index on the basis of average age.

Having significant amounts of fully depreciated assets still in use presents a problem to many companies. In this instante, review the lives originally established and, if te assets are signifi-



cant and are likely to be replaced, develop replacement costs and disclose, using realistic remaining lives. Againt, test for materiality.

What about assets that will not be replaced? Typically, these will be assets that:

- Clearly have undergone significant technological change.
- Are excessive under current production requirements.
- Are being operated on a marginal basis or are shut down.
- Are clearly unprofitable and would not be replaced in the normal course of business.

Within these categories a company is faced with critical decisions because there is likelihood of presenting misleading information. Appraisal advice may be necessary in these instances because such properties represent valuation problems. And rather than lump-sum inclusion with replaceable assets, appropriate disclosure of the facts and circumstances is called for.

Te next step in developing current replacement cost productive capacity is to test the results for reasonableness. The SEC has said that while it is not indicative of current economic value, replacement cost less depreciation should represent a reasonable approximation. Corporate management, in reviewing the final effort, therefore, must stand back from the calculations and ask wheter the net replacement cost is a reasonable approximation of current economic value.

The recalculated annual depreciation is going to make a significant impact on gross profit. Careful consideration, therefore, should be given to explaining offsetting operating savings if assets were replaced (se page 33).

Equally important is the question whether investors may be misled as to future cash requirements for plan and equipment replacement. Proper disclosure in te footnote is the only answer to these problems.

Use your head

In summary, an organized, good-sense approach provides an acceptable method for achieving replacement-cost compliane. When applied with care, the process outilined above will minimize distortions resulting from inadequate property records and will provide the company with:

- A factual basis for computing replacement cost and the recalculated annual-depreciation provision in the current and subsequent years.
- An expeditious method for effecting the necessary computations.
- An approach that outside auditors can understand and agree with in their review of the disclosure statement.
- A basis for disclosure that will not mislead investors.

A POSITIVE VIEW OF ASR-190

Through its replaement-cost-accounting rules, the SEC has triggered an opportunity for U.S. business to state its case on tax policy in an inflationary economy. A large number of major companies are operating with as much as 25 percent of their productive capacity fully reserved. Literally, no depreciation expense is being charged to operations. This means their taxes are excessive, and, more important, no provision can be made for ultimate replacement of facilities. Left unchecked, current depreciation rules/tax policy will produce a higher incidence of obsolete, fully reserved plants and a businness climate that dictates running older plants into the ground.

Among those who take somewhat dim view of the SEC's replarement-rost-accounting requirements is a refining company executive who, in response to a National Association of Accountants' survey, said he believes that "these new rules will cause further confusion with few, if any, compensating benefifts." Investors, he said, already "are receiving more information that they are able to assimilate."

In truth, however, what investors really need to know and, indeed, have the night to know is more information about a company that will allow them to evaluate how much longer they can reasonably expect their, say, $10 stock to earn $1 per share. For some, it is even more important to have a better basis for determining how much longer their dividends will continue. Certainly, they must be made aware that increasingly larger outlays for replacement of plant and equipment are here to stay and that increasing long-term debt to finance such replacements can be expected to influence dividend policy. Adequate 10-K and annual-report disclosure under ASR-190 should provide such information.

The direction of ASR-190 compliance clearly rests with chief executive officer. He can set the tone negatively and make a minimal effect. Or, he can approach the effort positively and gain several supplementary benefits from the exercise such as:

- A nation wide revie of current **ad valorem** tax assessments in relation to replacement cost new.
- Uniform measurement of divisional operating performance.
- Assessment of current pricing structures.

A perceptive chief officer will seize the opportunity afforded by ASR-190 for making himself and the case for business heard. What better forum could exist than 1,200 10-Ks, jointly reflecting the impact of inflation on business operations, placed as evidence in the hands of voting stockholders?

Following the leader

As in most situations, corporate staff gets excited about the same things the Boss does. The key to compliance success, therefore, will be dictaded by the attitude of the chief executive officer. If he does not see the downstream possibility for a united frost by busines and industry groups for some form of tax relief senior financial officer or controler —both busy persons— will probably attempt an approach best described as "quick and dirty with faith." Conversely, if those persons charged specifically with developing the data are alerted to potential benefits, the work effort will not be viewed as merely an enormous arithmetic exercise.

PAUL H. GROSS is vice-president, professional services, of Americas Appraisal Company. He directs development of staff and general management of all professional services of the company. Mr. Gross attended Harding College and Marquette University.