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## 9. THE REPORTING UNIT IN THE COLLECTION OF INVENTORY STATISTICS

The focus of this chapter is on advantages and disadvantages of collecting inventory data from different kinds of reporting units—establishments, companies and divisions. The reporting unit is important, as has become apparent in the course of this study, because many difficulties in gathering inventory statistics for manufacturing arise from different reporting units used in the census of manufactures and annual survey of manufactures (ASM), on the one hand, and the monthly Manufacturers' Shipments, Inventories and Orders Survey (M3), on the other. This is not to diminish problems associated with estimation procedures, nonresponse, and sample design.

In this chapter a revised survey structure for compiling and benchmarking monthly and annual inventory statistics is recommended. The proposal relates primarily to manufacturing because data for this sector are in greatest need of change. The proposed survey structure can be incorporated into the Census Bureau's wholesale and retail surveys with only slight modifications to existing programs.

### OBJECTIVES IN THE COLLECTION OF INVENTORY STATISTICS

An ideal collection system for monthly and annual inventory statistics should include the following:

- There should be consistency on a given date in valuation methods between the aggregate of a company's domestic inventory total and the reporting units into which the total is disaggregated. Also, the sum of the parts should equal the total when allowance is made for intrafirm transactions.
- There should be consistency on a given date between the inventory data reported in Census Bureau surveys and profits data or, more specifically, inventories underlying cost of goods sold. Both inventories and profits data enter into measurements of production and income in the national accounts. If inventories and profits come from different statistical sources, consistency is not possible.
- There should be consistency between inventories reported monthly and those reported annually since the latter provide annual benchmarks for monthly estimates. This requires consistency between inventory valuation methods used by reporting units in the monthly survey and those

in the annual survey. In this context consistency relates not only to LIFO-nonLIFO problems but also to the treatment of overhead costs.

- Reporting units of large firms should be as homogeneous and as narrowly defined as possible, consistent with other survey objectives, respondent burden, and availability of monthly data in records of large multiproduct firms.
- Existing surveys—essentially the annual survey of manufactures in this case—should be used as far as possible to determine the annual benchmark.
- The reporting system should not be burdensome to respondents. A successful system would be geared to data generated in firms' normal operations and ordinarily should not be dependent on data obtainable only through lengthy respondent calculations.

In this chapter allusions to the ASM refer to the benchmark series of inventory statistics for the end of each year, which is based on a census every fifth year and annual surveys in the intervening four years.

### PROBLEMS WITH REPORTING UNITS NOW USED IN MANUFACTURING

In this section, some of the features discussed in chapter 3—operations and results of the present system of collecting inventory statistics—are reiterated and are related to the goals listed above.

The approximate number of reporting units, defined in chapter 3, and canvassed in each survey are as follows:

Survey	Reporting Unit	Number Canvassed
Census	Establishment (plant)	313,000
Annual survey of manufactures (ASM)	Establishment	70,000
Monthly M3	Enterprise/division	4,500
	Enterprise units	3,400
	Division units*	1,100

\*450 enterprises report for 1,100 divisions.

## The Establishment

In large manufacturing firms with many establishments, the plant (or establishment) is sometimes a poor unit for reporting financial data or, more generally, data measured in value terms. In practice, shipments between establishments within the same firm need have no specific value assigned for the firm's own purposes. Since in such cases there is no obvious value of shipments for reporting in the ASM and compromises are made: The firm assigns a value solely for reporting to the Bureau of Census, sometimes using its own methods and sometimes by consulting with Census Bureau staff.

Similar problems arise in valuing inventories. Values reported by a firm in the ASM are often inconsistent with values at the company level because of differences in valuation methods. Special studies have made it clear that LIFO is used considerably more in the company-division based M3 survey than in the establishment based ASM. Aside from LIFO problems, other types of adjustments—obsolescence or shrinkage—may be made only at company or divisional levels. This is not to suggest that at establishment levels values of shipments and inventories reported by large firms are inherently faulty, but that lack of data consistency is a problem. Any large-scale statistical system of this kind requires compromises, and there is no doubt that compromises made for the ASM are reasonable.

Consistency between ASM benchmarks and data from monthly reporting units might be achieved by utilizing information from a monthly survey of establishments, but, this is an unworkable option because large firms could not or would not report promptly each month on this basis. Even annual reporting of shipments values by establishments in the ASM involves some conceptual difficulties; the Census Bureau never contemplated that establishment reporting could be accomplished on a monthly basis. Moreover, establishments are poor units for collecting sales (shipments) and orders data because there is extensive duplication whenever aggregation occurs. From 1947 through the early 1960's, the Census Bureau did not publish shipments data at 3-digit, 2-digit or all-manufacturing levels because of extensive duplication. The issue, therefore, is whether ASM establishment data for shipments and inventories are suitable benchmarks for a more aggregative type of monthly reporting unit.

Annual establishment data are not suitable benchmarks for monthly statistics reported by more aggregative reporting units. The problem is more involved than use of information from smaller versus otherwise comparable larger units. There are not only valuation differences for the same quantities, but also important differences in composition. That is, a company, division, or any type of broad unit will often include facilities that are not "operating manufacturing establishments" of the firm—for example, sales branches, warehouses, administrative offices, or wholesale operations. This often has been observed in the course of this study, both in conversations with respondent firms and in attempts to reconcile data reported by firms in the ASM and in the monthly M3. Further evidence supporting inclusion of nonmanufacturing inventories in the M3 appears in a special survey of large M3 respondents conducted by the Census Bureau in late 1970. Respondents were asked

whether inventories held at sales branches, warehouses and administrative offices were included in monthly M3 reports. Respondents "overwhelmingly indicated that they had been including these inventories in their reports."<sup>1</sup>

When one pattern of inventory valuation is used for benchmarking and another for extrapolating monthly or quarterly series, it is difficult to determine how well the extrapolating series are performing. Differences between a yearend book value obtained from monthly extrapolations during the year and a yearend book value obtained from a benchmark may reflect different valuation mixes. Even if two such yearend book values are identical, this still may mask large underlying differences in physical stocks. This problem can arise in single-establishment firms but is more likely to be important for large, multiestablishment companies.

Inventory data by establishment often are inconsistent with inventory values used in calculating cost of goods sold and, thus, profits since the latter are typically company-level calculations. This is especially true in large firms. If inventory data were collected only from establishments during the year, it would be more difficult to obtain consistent changes in quarterly inventories and profits estimates.

## The Enterprise

Using the aggregate of an enterprise as a reporting unit for an annual benchmark and as a monthly reporting unit meets some of the requirements listed earlier. Reports can be collected monthly and annually; inventory data collected would be reasonably consistent with profits data, and reasonably consistent for making monthly and annual valuations. However, using the enterprise as a reporting unit fails to meet two important requirements. First, it is not now used in the ASM and therefore would require a new reporting process; second, and more important, the enterprise lacks homogeneity as a reporting unit. Assigning a single industry classification to a conglomerate would lead to fundamentally flawed results because of the wide range of manufacturing and nonmanufacturing activities of conglomerates. Results for detailed manufacturing industries would be faulty as would the total for aggregate manufacturing. It was to avoid the use of such broadly defined reporting units that what is now the M3 survey was transferred to the Census Bureau 20 years ago.

## The Division

Between establishments and the aggregate of a large, complex manufacturing enterprise, there almost always are intermediate levels for operations, management and reporting. Alternative designations for such reporting units are "divisions," "departments," "segments," "product groups" or "branches." In some cases such units coincide with establishments. They may also be subsidiaries, which are legal entities. In this study, "division," the term preferred by most companies, is used. A division characteristically is more narrowly defined than a con-

<sup>1</sup>Memorandum by Edward A. Robinson, Industry Division, Bureau of the Census, for the M3 file, April 16, 1971.

solidated company and ordinarily is the level of aggregation in an enterprise for which financial statements are prepared, even though these may only be used internally.

Since divisions are units that firms define for their own purposes, annual data will always be available and, in most cases, monthly figures as well. Here "available" means that some key values such as sales, net income and inventory will be obtainable even though a comprehensive and detailed financial statement for each division may not be prepared for internal purposes each month.

In recent years an increasing number of firms have been reporting limited divisional information on sales and income in annual reports to stockholders. Typical is the Martin Marietta Corporation in its published 1976 annual report:

Category	(Millions of dollars)			
	Sales		Earnings	
	1976	1975	1976	1975
Cement . . . . .	114	126	15	10
Aggregate. . . . .	116	108	21	16
Chemical . . . . .	151	116	40	27
Aluminum . . . . .	302	256	47	16
Aerospace . . . . .	500	448	30	29

Since the firm reports earnings by five categories, it obviously has inventory data for these divisions.

Divisions already are used as reporting units in the M3 survey. For the M3 survey about 75 industry categories are tabulated, which are a mixture of 2-digit, 3-digit and combinations of 3-digit groups. The Census Bureau, however, publishes data for only 30 industry groups and 9 supplementary market categories. The divisional structure used by most firms should be acceptable if the homogeneity of products or the type of operations in the division coincides reasonably well with the definition of the industry group with which the reporting division is tabulated and published. In a limited number of instances divisions may encompass a large proportion of products (or value of products) secondary to the industry code of primary activities. In such cases Census Bureau staff could negotiate with firms to obtain more detailed reporting than the divisional structures maintained by firms for their own purposes. That is, provision should be made for subdivision reporting when breakdowns are important. The number of such cases should be limited.

## NEW ACCOUNTING STANDARDS FOR DISAGGREGATION

After issuing an exposure draft and holding extensive hearings, the Financial Accounting Standards Board (FASB) in December 1976 issued Standard No. 14, Financial Reporting

for Segments of a Business Enterprise.<sup>2</sup> The basic approach of the FASB standard is that statistics for each segment of a firm accounting for at least 10 percent of revenues, assets, or profits should be reported separately in public financial statements. This is a reasonable degree of disaggregation for Census purposes. It is especially reasonable if allowance is made for occasional needs to disaggregate further because of absolute sizes of specific activities or because a firm has grouped products into a segment in a manner inappropriate to some specific Census Bureau objective. However, there are possibilities of reporting conflicts between actual divisions of firms and segments as defined by FASB. The FASB standard is somewhat ambiguous about the degree of product detail critical to determining a reportable segment. This allows enterprises to make crucial decisions themselves, and most firms probably will use their own financial reporting divisions in applications of this standard. But standard 14 will have to be implemented before the severity of this problem can be evaluated.

Issuance of standard 14 by FASB reinforces the approach proposed in this chapter and encourages practical resolution of the reporting unit problem for the M3 survey. It stands in contrast to the kind of disaggregation by detailed line of business (LB) being sought by the Federal Trade Commission. In form B for 1973 and 1974, FTC requested financial reporting for some 200 industry categories. It stipulated that LB reporting units of enterprises could not include secondary products in excess of 15 percent. A number of firms refused to report to FTC and sought relief through the courts. FTC and Census Bureau objectives are different, and the type of disaggregation sought by FTC cannot be obtained in a continuing, voluntary monthly survey due shortly after the close of each month.

The FASB initiative is laudable, but standard 14, as issued, was ambiguous on the important question of interim (quarterly) reporting. The original FASB standard required interim reporting by segments if reports issued by the firm ". . . are expressly described as presenting financial position, results of operations and changes in financial position in conformity with generally accepted accounting principles."<sup>3</sup> It is clear that the recommendations in this chapter would be greatly facilitated if segment reporting for interim periods were widespread. In late 1977, standard 14 was amended so that any requirements for quarterly reporting by segments were eliminated. The general problem is being deferred by FASB until it issues new standards for interim reporting.

In May 1977, SEC proposed regulations and, in practice, recognized the annual reporting standards enunciated in FASB standard 14. The commission noted that it was not, at that time, accepting the recommendation of its advisory committee calling for interim reporting by segments; however, SEC did request an expression of views from the public. Even if the Commission does not require interim reporting on a segmented basis in its regulation, trends suggest that such a requirement

<sup>2</sup>Financial Accounting Standards Board, Standard No. 14, "Financial Reporting for Segments of a Business Enterprise" (December 1976).

<sup>3</sup>*Ibid.*, p. 2.

probably will be adopted eventually as standard practice in financial accounting.

## THE NEW BENCHMARKING SYSTEM

There are at present about 450 firms reporting monthly by division, but this reporting is uneven in quality and often incomplete. We are proposing a significant expansion of reporting by division, both annually and monthly and a new benchmarking system.

### The Annual Benchmark for Manufacturing

The primary recommendation is that the Census Bureau annual benchmarks for sales, inventories and orders from annual reporting units that conform reasonably well to monthly reporting units. As with any large-scale undertaking of this type, there are tradeoffs between what is ideal and what is practical, both for the Census Bureau and for respondents in a voluntary monthly survey.

For the annual benchmark, the sound base provided by the annual survey of manufactures should be retained. The present ASM sample structure contains some 23,500 single-unit enterprises. For these smaller firms ASM reports clearly provide the kinds of data needed for determining benchmarks. In 1976 the Census Bureau added an inquiry on unfilled orders to the ASM form, rendering it a suitable source for an M3 benchmark.

The ASM also includes some 7,500 multiestablishment enterprises operating about 49,000 manufacturing establishments. Under the new benchmarking system, these would be segregated into two categories, designated here as "regular" and "complex" and defined as follows:

Regular—small firms, and large firms which are homogeneous in product mix or activities.

Complex—large firms which are multiproduct, multiactivity or special in some other way.

Determining what features would cause some enterprises to be classified as regular and others as complex depends largely upon resources available to the Census Bureau. Once again, there is a tradeoff between the ideal and the practical. It is not possible yet to specify in detail all the characteristics of firms referred to above as "special in some other way." LIFO firms would probably fall into this category as would firms whose activities fall into several major industry divisions.

For firms categorized as regular, ASM establishment reports would be accepted for benchmarks. Therefore, some small deficiencies would occur in recommended benchmarks similar to those now caused by using ASM results exclusively for benchmarks. Basically, data collected through the ASM for perhaps 28,000 firms would be utilized and the ASM would remain the source of major components of benchmarks.

Firms designated as complex would be required to submit a new annual form as part of the mandatory annual survey of manufactures. Through this form, basic benchmark data would be collected on sales, inventories, orders and related information. For manufacturing as a whole, and specific industries,

annual benchmark data on sales, inventories and orders would be obtained by adding ASM establishment returns of regular firms to results from new annual benchmark returns of complex firms. Company data with divisional breakdowns for complex firms would be combined with establishment data from regular firms.

Each complex enterprise would report aggregate domestic sales and inventories as included in its financial statements. Divisional data would also be reported so they could be fully reconciled with company aggregates. Adjustments may be required between the sum of the divisions and the reported company totals to net out interdivisional sales. Such adjustments may also be needed for inventories, for example to net out profit margins taken on goods sold by one division to another and which remain in divisional inventory.

Inventories located at sales branches, warehouses, and central offices would present none of the problems already cited because most such establishments are included in divisions of large enterprises and thus would enter the manufacturing benchmark total. Selection of divisions and subdivisions that firms would report, in many cases, would be based on direct negotiations between the Census Bureau and the firms. This is a critical part of the new program and must be carried out by high-level personnel who are well-trained in accounting. Annual reports by large firms should be simple to obtain, but acquiring monthly reports may be more difficult.

Annual divisional reports would be due well after the close of the year. March 31, the present timing of the 10K report to SEC for calendar year companies, is a feasible due date. The report therefore would include final audited inventory data for firms. Since firms would already have routinely reported for December 31 in the sequence of monthly reports they should be asked to explain any significant differences between values reported on a preliminary basis and in concluding annual reports. Depending on the nature of revisions, annual adjustments might be spread over earlier months.

Since annual reporting would be mandatory under the new benchmarking system, it would encompass those firms which refuse to participate on a monthly basis. Similarly, firms reporting monthly on an abbreviated basis could be asked for additional detail on an annual basis. In other words, those refusing to report by division monthly would be required to do so annually, and firms reporting sales but not inventories monthly would be required to provide the latter information annually for benchmarks. Annual reports could also be used to update the divisional structure of firms due to mergers, acquisitions or internal reorganization. Annual reports in the future might also be used to obtain collateral data such as those on time structures of unfilled orders.

### Monthly Reporting

Under the new system those firms designated as regular would submit single reports for their complete enterprise each month. Classification of regular firms that have several establishments would be based upon the primary activity of the firm. Some inefficiencies would result, but these should be

minor since important cases of multiple activity would have been taken into account in the original designation of regular and complex. A screening process would be needed from time to time to identify firms that have changed sufficiently to be moved from the regular to the complex category.

Obtaining annual reports from divisions should be relatively easy because firms would be asked to supply annual figures compiled for their own purposes. This may not be the case on a monthly basis and skillful negotiations would be required. As a start, complex enterprises should be requested to supply monthly data by division similar to those requested annually. However, since reporting will be voluntary and would be requested about 20 days after the end of the month, compromises may be needed.

During personal visits and other contacts with firms, the authors found that many companies report in the M3 survey for one or two divisions for which data are available promptly and ignore data for remaining divisions. Since these were cases of otherwise very cooperative firms, the Census Bureau should accept reports from divisions that are able to report early and make arrangements for more complete reporting later as added divisional information becomes available. The Census Bureau has not approached such firms with a whole-company concept as a goal but has accepted too little in the way of monthly reports. The Bureau should compromise by permitting late reporting.

## LIFO VERSUS PRELIFO REPORTING

Should LIFO reporters be required to submit only preLIFO data? One of the recommendations in this chapter is that the Census Bureau should put greater emphasis on obtaining company-divisional reports from large manufacturing companies, many of whom are on LIFO. Because of difficulties in reporting LIFO inventory data, a recurring question has been whether firms using LIFO for financial reporting should be required to report preLIFO (for example, FIFO) inventory values in Census surveys. The conclusion reached in this study, after a detailed consideration of the issue, is that they should not—that current Census Bureau policy of collecting LIFO inventory data from LIFO firms is better than collecting only preLIFO data.

Even given this conclusion, a procedure for collecting preLIFO data from all LIFO firms has some positive features. It would be much easier to administer. If all firms report on a preLIFO basis monthly and annually, the procedure for deflating inventories would be simplified because there would be no problem in measuring the level and changes in LIFO proportions. External data on prices, inventory composition and turnover would be assembled and updated periodically for use with the preLIFO figures. Staff requirements at Census would be lighter; the need for accounting expertise would be reduced. Demands upon respondents would be lessened because collecting and using LIFO data require more information and more frequent contacts with respondents for clarification of statistics reported. Breakdowns of inventories by stage of fabrication would be improved. Finally, the benchmarking process

would be more meaningful because methods of valuation used in the monthly or quarterly extrapolating series and yearend benchmark figures would be more nearly identical.

In deciding whether to continue collecting only LIFO inventory data, the Census Bureau should recognize that although LIFO reporting poses difficult problems, they are not insoluble. Solutions would not be easy, but success in this endeavor would result in a data system that is greatly superior to one that would rely solely on preLIFO values. The Census Bureau has already taken some steps to improve reporting and processing of data from LIFO firms. In manufacturing, the Bureau has begun collecting LIFO inventories, LIFO reserves and preLIFO inventories on a monthly basis. This single innovation in collection procedures greatly improves basic data needed to calculate changes in manufacturing inventories and should be extended to wholesale and retail trade. Once the new system is working, the Census Bureau will be able to make separate tabulations of LIFO and nonLIFO segments within each industry group.

Assume the following hypothetical situation for an industry:

	End of Year 1	Middle of Year 2
LIFO segment . . . . .	50	60
NonLIFO segment . . . . .	50	30
Industry total . . . . .	100	90

Under present procedures, the Bureau of Economic Analysis uses fixed LIFO proportions for an industry throughout the year. In the above situation if BEA is using a LIFO proportion of 50 percent and a total value of inventory of 90 were reported at midyear, it would assign values of 45 each to the LIFO and nonLIFO segments rather than the correct values of 60 and 30. Even when LIFO proportions are in error, the size of errors under present BEA procedures is highly dependent upon magnitudes of changes in price indexes used for deflating and reflating. If prices rise substantially, sizable errors may be made in changes in business inventories and inventory valuation adjustments. In the future, BEA will be able to obtain tabulations for LIFO and nonLIFO segments of each industry.

The new monthly reporting system adopted by the Census Bureau provides flexibility for their processing of reports. For example, the Bureau will be able to identify firms that claim to be reporting LIFO values when in fact they are not. But, this study's support for LIFO reporting does not mean that Census should never request preLIFO values. LIFO firms, for example, with a fiscal year ending several months before or after December 31 could be asked to report on a preLIFO basis in order to avoid yearend LIFO adjustments during the calendar year.

As Census Bureau staff gain experience in dealing with LIFO firms, other possibilities for data improvement will arise. In the future, LIFO firms could be asked to report their price indexes and inventory change in base period prices. Both are intermediate steps in deriving LIFO inventory values and firms may not object to reporting them.

In summary, when LIFO firms calculate their inventory change they are providing information that in principle can be used directly in GNP calculations and that is consistent with reported profits. These are considerable advantages that should not be lost. Collecting LIFO data should not be discontinued because of current reporting difficulties. One should not opt for a procedure because it is easy and, at the same time, ignore its vulnerability to large errors. If it were certain that prices would rise by only 2 or 3 percent per annum, preLIFO reporting might be an attractive alternative. However, a statistical system should be capable of withstanding shocks that come from very large price increases.

### INVENTORY DATA BREAKDOWN BY STAGE OF FABRICATION

Shifting from a benchmark based on establishment reports in manufacturing to one based on company and divisional reports would change estimates of the composition of inventories by stage of fabrication.

No change is recommended in the present procedure by which the Bureau of the Census collects yearend inventory data by stage of fabrication from establishments in the annual survey of manufactures. Thus, these data will continue to be available to users as in the past, based on the latest ASM results. The proposal for shifting to a company-division reporting unit and benchmarking structure will require reporting units to report breakdowns by stage of fabrication appropriate to the unit, that is, the company or division.

There is nothing new or different about collecting data monthly for extrapolating annual benchmarks. There have always been company-division reporting units in the M3 survey. A procedure by which benchmark data by plant or establishment are extrapolated by using company-division data is undesirable. The difficulties with the present procedure can be clarified by an example. Suppose a firm consists of two integrated establishments with the output of plant A constituting the material input to plant B

	A	B	A + B
Materials . . . . .	50	20	70
Finished goods . . . . .	50	80	130
Inventory. . . . .	100	100	200

If the two establishments are in the same industry group, the breakdown of inventories by stage of fabrication would appear as shown in the A + B column. However, on a company basis, entirely different figures would be reported by stage of fabrication:

Material. . . . .	50
Work in process . . . . .	70
Finished goods . . . . .	80
Total. . . . .	200

In this example, the finished goods of A and the materials of B are the same goods and constitute work in process of the firm. One of the problems with the present M3 benchmarking and estimating process is that the establishment-based classification of inventories—70 for materials, 0 for work in process, and 130 for finished goods—are extrapolated from data reported on a company basis.

The recommended benchmarking structure appears to introduce new problems, which relate essentially to firms using the dollar value LIFO method of inventory valuation. Under the dollar value LIFO method, the several stages of fabrication often are combined in a single inventory pool for which a single calculation is made. Separate inventory figures by stage of fabrication thus are lost. When this occurs the problem exists for establishment data as well as for company data. When establishment data are reported in the ASM on a preLIFO basis this reporting problem associated with stage of fabrication is eased.

Many dollar value LIFO companies make estimates of inventories by stage of fabrication but little information is available on how these estimates are made. A special survey should be taken to determine the dimension of the problem. The Census Bureau should conduct such a survey asking LIFO firms if they have a stage-of-fabrication breakdown of yearend and interim inventories and, if so, how they obtain their breakdowns. If, on the basis of the special survey results, it appears that firms resort to crude procedures to obtain estimates of inventories by stage of fabrication in responding to Census Bureau surveys, at least the dimensions of the problem will be known.

Problems with inventory data by stage of fabrication are likely to become increasingly important in years ahead as more firms shift to the dollar value LIFO method. Building up a body of knowledge about details of LIFO holds the best promise for resolving these difficulties. In the meantime, there should be no illusions about the quality of data now being obtained.

A questionnaire, designed to elicit needed information from LIFO companies, is provided as appendix A.

### POTENTIAL CRITICISMS OF DIVISIONAL REPORTING AND THE PROPOSED NEW BENCHMARK

There are some valid criticisms of the proposed reporting and benchmarking structure, but the problems are minor compared with defects in the alternatives. In this section, these criticisms are noted and responses provided.

1. The proposed benchmark is too pragmatic. It mixes establishment and company data with no sound definitional base.

This criticism is not of overriding importance although it contains an element of truth. The most important function of the Census Bureau's inventory series is to provide reasonably accurate measures of real inventory change in the short-run. It is better to have a pragmatic mix in a system that works, provides reasonable estimates of monthly and quarterly changes, and sheds light on cyclical turning points than it is to have a system that definitionally is more pure

but statistically flawed. The present structure in which establishment-based inventories are used to benchmark inventories obtained from company-divisional units reporting monthly may be seriously flawed. The establishment is not a strong unit for collecting monthly reports even though it is conceptually clean and readily defined.

2. The division is an unstable unit. Within firms divisional structures can change for both economic and noneconomic reasons.

Divisions are less stable reporting units than either establishments or companies. Instability is a drawback for the proposed survey structure, but this relative instability does not warrant nullifying the entire plan. Advantages outweigh disadvantages by a wide margin even after this feature is taken into account. Further, with formal introduction of segment reporting under the new FASB standard, instability undoubtedly will be reduced.

3. For some LIFO firms, LIFO valuation may be used only at the highest level of the enterprise. That is, divisional inventories may be valued only on a nonLIFO basis.

While this will occur, it probably is not a serious problem, and is far less serious than would be the case if monthly reports were obtained only from plants. Generally speaking, inventory pools or natural business units used by large firms will conform reasonably closely to their divisions. Even when they do not conform, firms are likely to allocate LIFO reserves to divisional totals for their own financial statements. In infrequent cases when firms are actually unable to report by divisions on a LIFO basis, the Census Bureau must decide whether to allocate LIFO reserves to divisions itself or to leave these firms on a nonLIFO basis. Such decisions can only be made on a case-by-case basis after consultation with the firms involved.

4. Apart from LIFO, some inventory adjustments (shrinkage or obsolescence, for example) are made only at the overall company level and are not allocated to individual operating divisions.

Such adjustments should not be an issue since they can be resolved by adding a netting-out line between the sum of the divisions and the company total in the annual report form.

5. Divisional inventory data will be inconsistent with profits data entering the income side of the GNP accounts.

This is true, but divisional inventory data will be more consistent than the present establishment data. That is, the degree of inconsistency will be reduced.

## INTEGRATING MANUFACTURING WITH OTHER REPORTS

Problems with the new benchmarking system for the manufacturing sector are not of major consequence in wholesale and retail. However, this proposal requires consistent and comprehensive reporting for large firms; this must be extended to retail and wholesale as well.

In a few instances, there is some duplicate reporting between various industry divisions. For example, a firm may report its retail inventories in the retail survey and its combined manufacturing and retail inventories in the M3 manufacturing survey. The divisional reporting of large firms obviously must be monitored by using procedures which would eliminate possibilities of such duplication. Annual and monthly responses of complex firms should encompass those operating, say, in both manufacturing and retail trade and necessary disaggregation of divisional reporting units should be obtained. In this area it may be necessary to elicit reports from units that do not conform to the actual divisional structures of firms, but this should not be overly troublesome. The Business Division of the Census Bureau already conducts surveys along such lines. Respondents in the wholesale survey are asked to report exclusively for their wholesale trade activity and in retail to report exclusively for their retailing. Therefore, what is proposed is repackaging of reports in a way that does not include duplicate counting of trade activities.

There are some operational problems. Data for large, complex firms that operate in several different industrial divisions would have to be received centrally so appropriate parts could be routed to the separate manufacturing, wholesale, and retail surveys. This, however, is of minor consequence operationally. If perhaps 2,000 companies were classed as complex, probably fewer than 100 would be operating in 2 or 3 of the major divisions for which the Census Bureau conducts surveys. Another 100 or so large firms could have other mixtures of activities involving construction and mining. They would report total results for their entire operations and also results for specific divisions or segments.