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Classifying Segments for Line-of-Business Reporting

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With line-of-business reporting in prospect, at least for public corporations, time is running out for accountants to establish guides for identifying and classifying the segments of a diversified company. The author seeks standards for such a classification system and recommends that the Standard Industrial Classification (SIC) scheme be adapted as a starting point.

The drive toward greater disclosure in reports to shareholders has brought an SEC proposal that diversified companies analyze their profits by line of business. Whereas the SEC had previously required of diversified companies that they include profits by line of business in registration statements and annual 10K reports, the accounting profession failed to adopt equivalent reporting requirements, continuing instead its support of APB Statement No. 2, which merely urged *voluntary* disclosure of supplemental information about industry segments. Reporting by line of business is now on the FASB's agenda; a discussion memorandum is expected to be followed in the normal course by a formal pronouncement.

Clearly, an investor's evaluation of a diversified company could be influenced by data indicating the relative importance to the company of its components. Since each line of business has its own characteristic profitability, opportunities, and risks, an evaluation of the whole company can benefit from segmental details of revenue, expenses, profits, and trends. In anticipation of required reporting by line of business, independent auditors, who may be expected to attest to the new financial disclosure, must concentrate on identifying and classifying business segments.

The Accountants International Study Group, in recommending extension of the attest function to segmental reporting, observed that "auditors are experienced in dealing with questions of allocation, materiality, intercompany transactions, adequacy of disclosures, and other matters relevant to reporting for diversified companies. *Less obvious, however, is whether the experience of independent auditors qualifies them to decide when a diversified company has been divided into homogeneous segments. That capability is critical because relying solely on management decisions on the matter could limit the creditability and usefulness of the resulting information.*"[1] (Emphasis added.)

Accordingly, this article focuses on the critical problem of identifying and classifying lines of business. The quality of reporting by lines of business depends on the adoption of an adequate classification system.

SEC Requirements and Reporting Practices

Although the SEC modified its rules in 1969 and 1970 to require line-of-business reporting in filings with the Commission, it declined to define a line of business. Rather, it left to management the selection of a reporting pattern appropriate to its company's operations and responsive to its organizational concepts. In claiming that it was neither feasible nor desirable to be more specific in defining a line of business, the SEC cited such factors:

- (a) the numerous ways in which companies are organized to do business
- (b) the variety of products and services they sell
- (c) the history of predecessor and acquired companies
- (d) the diversity of operating characteristics, such as markets, raw materials, and manufacturing processes

However, the SEC has furnished broad guidance for grouping of products or services into lines of business in its statement that appropriate consideration should be given to all relevant factors, including rates of profitability of operations, degrees of risk, and opportunities for growth. Furthermore, the SEC required that companies disclose sales by principal classes of similar products and services. Specifically, the SEC rule requires companies with sales

[1] Accountants International Study Group, Series No. 5, *Reporting by Diversified Companies* (New York: American Institute of Certified Public Accountants, 1972), paras. 79 and 80.

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exceeding $50,000,000: to report on no more than the 10 most important lines of business, and then only for segments accounting for (a) 10 percent or more of the total sales and revenue, (b) 10 percent or more of income before income taxes and extraordinary items without deducting a loss resulting from operations of any lines of business, or (c) a loss that equaled or exceeded 10 percent of the income specified in (b) above. (A 15 percent materiality test applies to smaller companies.) In the absence of standards of classification of lines of business, the designation of a 10 percent cut-off rule, which in itself is probably reasonable, does not provide adequate guidance. The first step is to identify appropriate segments. Of necessity, that step precedes a materiality test.

The SEC limited its delineation of business components to broad guides on the premise that management's familiarity with company structure qualified it best to divide a company into reasonable components. However, a review of current practice reveals inconsistent practices. Among Fortune 500 companies' 10K reports for fiscal year 1972, a number of companies report one line of business only, although they appear to be as industrially diversified as companies reporting multiple lines of business. Several of the one-line companies reported sales by major classes of product. For example, the reported sales of one company include laundry and cleaning products, personal care products, and food products. Another company shows sales of control systems for home, industries, aerospace and defense, information systems, and photographic products. Still another company manufactures construction equipment, hardware, wire rope fittings, boilers, and presses. Other companies disclosed line-of-business profits, but the degree of aggregation quite often made it exceedingly difficult to relate the data to other economic information. In one case, line-of-business profits are reported for three catagories: "Energy," "Fibers," and "Chemicals." "Energy" includes petroleum, coal, and coke; "Fibers" comprise fibers and fabricated products; "Chemicals" include inorganic, organic, agricultural chemicals, and plastics. In another case, line-of-business earnings are reported in two categories–(a) Chemicals and (b) Machinery.

Descriptions of segments in present reporting in 10Ks frequently lack analytical significance. For example, common generic classifications do not convey much useful information. Descriptions such as "consumer products," "industrial products," and "leisure-time products" often represent a wide variety of products that might better be analyzed further. It must be conceded, however, that generic terms are often used to aggregate activities that are individually immaterial: some reports disclose the specific products included under general captions. Line-of-business reports also frequently incorporate a mixture of product-industry-geographic area classifications. Sometimes all three categories appear in a single report, naturally raising queries as to the relations between geographical segmentation and industrial segmentation.

The absence of standards for segment identification or classification undoubtedly contributed to the deficiencies in current practice. The SEC's requirement that the grouping of products into lines of business should take into consideration all relevant factors, including rates of profitability, degrees of risk, and opportunities for growth, is general enough to accommodate divergent practices. The extent to which reported data is aggregated or disaggregated is left to management's discretion and judgment. But managements differ in their attitudes on financial disclosure, have different competitive risks, interpret differently such terms as "line of business" and "industry"; and they apply different yardsticks in assessing the materiality of variations in profitablity, risk, and growth between segments. Additionally, integrated segments that transfer a major portion of their production to other segments generally are not reported separately. Thus, an integrated company may operate in a number of industries and nevertheless feel justified in reporting but one line of business. No criticism of those companies is warranted; and none is intended.

Why Classification Standards Have Been Avoided

The development of a classification system raises onerous problems. The following excerpt is taken from the Accountants International Study Group publication, *Reporting by Diversified Companies:*[2]

> ". . .the greatest difficulty arises because diversification takes a number of forms, such as geographic dispersion, diversity of product, and differences in markets. Each form may create segments that differ significantly in profitability, growth, and risk and each implies a different basis for identifying segments. Moreover, more than one form of diversification may be present in the same company. The problem is further complicated by haziness in the meaning of terms such as industry, product, location, and market."

Those difficulties may explain why both the APB and the SEC allowed their terminology to go undefined. The APB used the term "industry segment" without definition in Statement No. 2; and the SEC, as already noted, chose not to define the term "line of business."[3]

[2] Accountants International Study Group, *op. cit.*, para. 33.

[3] In Opinion No. 30, "Reporting the Results of Operations," the APB defined the term *segment* for purposes of accounting for the disposal of a segment of a business: "a component of an entity whose activities represent a separate major line of business or class of customer. A segment may be in the form of a subsidiary, a

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Backer and McFarland, in their NAA study, concluded that any uniform classification system based on industry or product characteristics is unlikely to work for segmental reporting.[4] Breakdown by industry, market, or geographic area may be applicable in different situations. The essential need is to present earnings contributions in a manner that reflects the operative economic factors. For example, a company in a single "industry" doing business internationally might disclose profits by geographic area, while a company manufacturing a single product for different markets might disclose profits by market classifications.

It is interesting to note that the Accounting and Auditing Research Committee of the Canadian Institute of Chartered Accountants also chose not to recommend a uniform system of industrial classification. Instead, the CICA opted for broad industry groupings, and recommended that "if Management decides that segmentation on a basis other than industries is more appropriate for the enterprise, disclosure should be made of the reason for this decision."[5] The CICA research committee reasoned that "... the price-earnings multiples which are used in evaluating an enterprise's investment worth are established on the basis of industries, rather than markets or geographical areas. Similarly, the nature of the economic environment within which an enterprise operates is normally determined by considering industry-wide guidelines and statistics."[6]

In the Financial Executives Institute Study, Mautz recommended segmentation along industry lines, using broadly defined industry groupings.[7] Mautz rejected a standard classification system because "... fractionalizing anything as unique and dynamic as business corporations on the basis of a single set of industry classes would, in an important number of instances, result in reporting components which do not in any sense of the word represent the reality of the companies' operations and financial positions."[8] Mautz followed with the warning that "one does not have to be a prophet to foretell that failure on the part of managements to report usefully and adequately in this respect will lead to the institution of strict requirements ...," which would have substantial disadvantages.[9]

The deficiencies observed in current reporting practices clearly show that the time has come for adopting a classification system. The SIC code at the three-digit level is such a system. It offers a useful basis for classifying business segments. As a classification system (assuming reasonable application and adequate disclosure of departures), the SIC code could serve as a guide to management for identifying and classifying segments of a diversified company. Equally important, it would provide an essential standard for the independent auditor who may be charged with the task of attesting to the validity of that segmentation.

SIC Codes

It is undoubtedly possible to list the distinguishing characteristics of individual lines of business—such items as raw materials, production processes, marketing methods, distribution channels, end uses of products, regulation, economic factors, rates of profitability, opportunities for growth, and risk—then to quantify, weight, and combine these characteristics so as to provide criteria for differentiating between lines of business and, further, to use these criteria as the basis for a classification system. Fortunately, it is not necessary to go through such a time-consuming and difficult exercise.

It is not necessary to construct a new code. The Standard Industrial Classification (SIC) at the three-digit level classifies industry groups that are sufficiently broad to differentiate lines of business reasonably and meaningfully for financial reporting purposes. At the same time, SIC codes avoid the pitfalls of overly detailed classification.[10]

The SIC code categorizes economic activity in 11 divisions:

(a) Agriculture, forestry, and fishing
(b) Mining
(c) Construction
(d) Manufacturing
(e) Transportation, communication, electric, gas, and sanitary services
(f) Wholesale trade
(g) Retail trade
(h) Finance, insurance, and real estate
(i) Services

division, or a department, and in some cases a joint venture or other non-subsidiary investee, provided that its assets and results of operations can be clearly distinguished from the other assets and operations of the entity." In an Interpretation of APB Opinion No. 30, appearing in the November 1973 issue of *The Journal of Accountancy*, the term *segment* is applied in the disposal of a company's only electronics division, but not to the sale of one of two furniture manufacturing subsidiaries or one of several mining operations. The latter two operations are each considered parts of a single line of business.

[4] M. Backer and W. B. McFarland, *External Reporting for Segments of a Business* (New York: National Association of Accountants, 1968), p. 21.

[5] Accounting and Auditing Research Committee, "Financial Reporting of Diversified Operations," *Chartered Institute of Canadian Accountants Handbook*, Section 1700, para. 11.

[6] *Ibid.*, para. 10.

[7] R. K. Mautz, *Financial Reporting by Diversified Companies* (New York: Financial Executives Research Foundation, 1968), p. 157.

[8] *Ibid.*, pp. 133-134.

[9] *Ibid.*, p. 134.

[10] Statistical Policy Division, Office of Management and Budget, *Standard Industrial Classification Manual* (Washington D.C.: Government Printing Office, 1972).

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(j) Public administration
(k) Non-classifiable establishments

Each division is broken down into major groups (two-digit level). For example, Division D: Manufacturing is divided into 20 groups at the two-digit level:

20. Food and kindred products
21. Tobacco manufactures
22. Textile mill products
23. Apparel and other finished products made from fabrics and similar materials
24. Lumber and wood products, except furniture
25. Furniture and fixtures
26. Paper and allied products
27. Printing, publishing, and allied industries
28. Chemicals and allied products
29. Petroleum refining and related industries
30. Rubber and miscellaneous plastics products
31. Leather and leather products
32. Stone, clay, glass, and concrete products
33. Primary metal industries
34. Fabricated metal products, except machinery and transportation equipment
35. Machinery, except electrical
36. Electrical and electronic machinery, equipment and supplies
37. Transportation equipment
38. Measuring, analyzing, and controlling instruments; photographic, medical, and optical goods; watches and clocks
39. Miscellaneous manufacturing industries

Two-digit level groups are broken down further into industry groups (three-digit level). For example, the following industry sub-groups are included under group No. 37—Transportation Equipment:

371—Motor vehicles and motor vehicle equipment
372—Aircraft
373—Ships and boatbuilding and repairing, parts
374—Railroad equipment
375—Motorcycles, bicycles, and parts
379—Miscellaneous transportation equipment

Although industry groups are further broken down into four-digit level industries, the three-digit level categories appear to conform to the concept of "broad industry groups" or "lines of business"; whereas the four-digit level industry classes reflect the narrower concept of product lines. For example, "Dairy Products" is a three-digit category: at the four-digit level the category is broken down into (a) creamery butter, (b) cheese, natural and processed, (c) condensed and evaporated milk, (d) ice cream and frozen desserts, and (e) fluid milk.

The SIC code has advantages as the most widely used classification code of its type. The Technical Committee on Industrial Classification, which participated in a 1972 revision, included representatives of 14 governmental agencies vitally concerned with collection of economic data. In addition, private advisory groups were represented.

Therein lies the great strength of the code. It is a product of the cooperative effort of many agencies and individuals with a wide range of background, ideas, and views. That characteristic is essential if an industrial classification system is to be accepted for an entire economy. A weakness, as is often true of a group effort, lies in the fact that the code reflects compromises designed to meet the varying needs of the participating agencies and groups.

The SIC was developed (a) to classify establishment by type of activity in order to facilitate collection, tabulation, presentation, and analysis of industry data; and (b) to promote uniformity and comparability in the presentation of statistical data collected by various agencies of the United States Government, state agencies, trade associations, and private research organizations.

An establishment is defined as an economic unit, generally at a single physical location where business is conducted or where services or industrial operations are performed.

The classification conforms to the actual structure of industry as it is found in the United States economy. It does not, therefore, follow any single principle, such as end use of products, market structure, or nature of raw materials. It was not developed specifically for financial reporting by segments of an enterprise. For these and other reasons stated earlier, Mautz rejected the SIC code for financial reporting by diversified companies.[11]

To an extent, the code does combine product and end-use classes. Thus, even at the three-digit level, which represents fairly broad industry groups, essentially similar products are sometimes classified differently. Furthermore, differences between companies as to organizational structure, operational characteristics, and extent of diversification prevent the uniform application of this or any other code. Nevertheless, despite its weaknesses, the SIC three-digit level is the best hope for setting standards.

Although the SIC code was not designed specifically for financial reporting of segmental operations and it may contain some inconsistencies, *it was designed to differentiate between industrial activities.* At the three-digit level, the 140 categories for manufacturing provide fairly broad differentiation by line of business. Applied in a reasonably flexible manner to minimize the effects of inconsistencies, the code could serve as a guide for segmental reporting without unduly limiting a management's exercise of judgment. Certainly, use of the three-digit code would be an improvement over present segmental reporting.

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[11] Mautz, *op. cit.*, pp. 131-132.

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Application of the SIC Code to External Financial Reporting

External segmentation along the lines of the three-digit SIC code would be compatible, in most cases, with corporate organization and internal divisionalization.[12] Indeed, a Conference Board report on corporate organization structures points out that the process by which a company is divisionalized and the factors that make divisionalization possible or desirable require the existence, for a group of products, of certain characteristics:[13] (1) discrete or separate production processes, (2) discrete or separable markets, and (3) size sufficient to sustain a full-time management team. The SIC categories are sufficiently broad and differentiated to ensure that these tests are met. One would therefore expect to find internal reporting to segment activities so classified. This expectation should help to overcome the objections of those who question the extent to which financial disclosures should be on a theoretical basis where there is an absence of factual segmentation.

Corporate divisions. Internal segmental reporting generally conforms to corporate divisional structures. Divisions can serve as building blocks for external reporting by fitting the internal data into the three-digit code for external reporting. A division that incorporates both production and sales functions certainly can serve as a basis for external reporting. This structure is quite common. A Conference Board study of the presence and frequency of the major functions included in divisional organizational structures found that in the 114 divisions examined, both manufacturing and sales functions were included in 95 percent of the divisions. Engineering and accounting functions appeared in 80 percent of the divisions. Other functions, such as personnel, marketing, R & D, and purchasing, were included in 60 percent of the divisional structures examined.[14]

Divisions, however, may be oriented to products or markets. Divisions oriented to markets may cut across industry lines, necessitating further segmentation for line-of-business reporting. For example, a division—or a company for that matter—manufacturing consumer products, including paper goods, toiletries, and certain food preparations, may be organized to market and distribute the production of its several plants through a unified marketing and distribution function. Under those circumstances, expense allocations are required, unless disclosure is limited to reporting the gross margins of lines of business (paper, toiletries, food products), leaving all marketing and distribution costs unallocated.

Cost allocations between periods, functions, and segments are not new to accounting. If allocations are needed, bases for segmental cost allocations are readily available. Alternatively, a profit contribution figure exclusive of certain common costs can be used to avoid arbitrary allocations.

Divisions may also be structured along product lines, or narrow industry lines (four-digit level). Reporting under the three-digit level of aggregation would allow the operating results of such divisions to be combined.

Integrated divisions which do not sell outside of the company are in essence cost centers in a production chain. Their operating results may be combined with the results of divisions receiving their output.

Divisional units, therefore, do not necessarily coincide with industrial classifications by line of business. However, the use of broad industry groups, such as those at the SIC three-digit level, would substantially reduce the need for complex cost allocations. To demonstrate the effect of applying the SIC code, consider a company discussed in a recent Conference Board study that has the following divisions:[15] (1) Coffee, (2) Cereal, (3) Frozen foods, (4) Beverages, (5) Dessert, (6) Variety foods, (7) Institutional foods service, (8) International—Europe, Pacific, and (9) four other divisions referred to by corporate name. The company reports to the SEC a single line of business and discloses its sales as follows:

Domestic—Grocery, coffee
—Other grocery
—Other business

Overseas
Canada

[12] The FASB research study of management decision criteria for internal vs. external segmentation, based on field research of 30 companies, found that internal segmentation is largely affected by "(1) the philosophy of senior corporate management, (2) the nature of the activities in which the companies were involved, (3) the capabilities of segment managers." The basic rationale underlying the selection of external segments was "to present the company's operations in terms most understandable and most useful to investors. Practically all of the companies believed this could best be accomplished by external segments based upon product lines." Other factors affecting external segmentation were: (1) fear of competitive harm, (2) industry practice, (3) extent of common costs, (4) concern over possible unfavorable impact on management decision-making.

Internal segmentation of the 30 companies was as follows: Product line—21, Legal entity—4, Geographic region—3, Plant—3. Eighteen of the companies used the same basis for external segmentation. Eleven companies used different bases. One company did not make external segment disclosures.—FASB Discussion Memorandum: Financial Reporting for Segments of a Business Enterprise, May 22, 1974.

[13] Allen R. Janger, *Corporate Organization-Structures: Manufacturing* (New York: The Conference Board, 1973), p. 9.

[14] H. Steiglitz and C. D. Wilkerson, *Corporate Organization Structures, Studies in Personnel Policy No. 210* (New York: The Conference Board, 1968), p. 10.

[15] A. R. Janger, *op. cit.*, p. 49.

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That company may well be in a single two-digit category, "Food and Kindred," in the SIC code. But line-of-business reporting at that level of aggregation is not informative to investors. At the three-digit level, the company's operations would be classified into at least three industries: grain mill products, coffee, and miscellaneous food preparations. Operations reflecting geographical segments would have to be reclassified within the three-digit code structure.

Another company is segmented internally into the following divisions: Industrial Chemicals and Plastics, Organic Chemicals, Pigments, Consumer Products, Fibers, Toiletries, Formica, Agriculture, Canada, International, and two other divisions referred to by corporate name. The company's financial report, however, shows sales and profits for four lines of business: Building and Consumer, Medical, Agricultural, Chemical. Clearly, considerations of materiality excluded, this degree of aggregation does not allow for a meaningful analysis of profits by industry groups. Fitting the divisional structure of the company to the appropriate SIC three-digit categories, with reasonable modifications, would provide investors with a better basis for judging the performance of the company and relating that performance to other economic data.

Federal Trade Commission Program. The Federal Trade Commission recently adopted the three-digit SIC code, with some modification, specifically for the reporting of segmental profits as part of an Annual Line of Business Report Program, which is to be an adjunct of the Federal Trade Commission's Quarterly Financial Statistics Program. The FTC code, as adopted, consists of 219 manufacturing categories. At the first stage, the Commission plans to collect data on revenue, expenses, and profits by line of business from about 500 of the largest manufacturing corporations and to publish selected aggregate performance measures for industry categories. After an initial period, the data will be collected from the 2,000 largest manufacturers.

For this purpose the FTC defined a line of business as the combination of all segments of a company having the same FTC primary activity code. A segment is defined as an establishment or plant or part of a plant. The FTC claims that its industry categories are defined in terms of economic meaning, competitive significance, and compatibility with other sources of data. Essentially, the Federal Trade Commission used the SIC's three-digit categories as building blocks in constructing its code. In addition, however, the FTC code includes a number of four-digit SIC categories, thus making the code more detailed than the SIC three-digit level code (219 vs. 140 categories). For example, the FTC code differentiates household appliances into seven lines of business. Motor vehicles and motor vehicle equipment are segregated into four lines.

The FTC classification system may be well suited to its objectives. The demands and needs of investors, however, must be balanced against the legitimate concerns of management about loss of competitive advantage and the inability of accounting to provide reliable segmental data if segments are defined narrowly. In contrast with the FTC code, the SIC three-digit code classifies motor vehicles and motor vehicle equipment in a single category, and household appliances are included in a single category.

Apart from the somewhat greater detail of the FTC code, it is structured for the most part on the SIC's three-digit code. Thus, companies required to report to the FTC would, apart from compliance disclosures, be in a position to utilize the three-digit code for financial reporting to shareholders.

Conclusion

A line-of-business or industry segment cannot be defined precisely. In management's thinking, the term may represent broad industry categories, widely differentiated product groupings, such as the steel industry or the petroleum industry. Security analysts may prefer a narrower interpretation of the term. Standards are needed to provide guidance for segment reporting to insure that meaningful data is reported to shareholders. Despite some deficiencies, the three-digit level of the SIC code can be adopted in a reasonably flexible manner by the FASB to guide the identification of segments for financial reporting.

Current practice shows that diversified companies that report more than one line, on the average, report the profits of approximately four segments. Conceivably, the average number of segments reported on would increase if the SIC code were used. It is doubtful, however, that the number of segments reported on would extend beyond the limit of 10 set by the SEC in its rules. In any event, a materiality test, such as that adopted by the SEC, could still provide a reasonable limit on segmentation.

The recommendations proposed in this article aim at improving enterprise segmental reporting. As an incident thereto, these recommendations, if adopted, should lead to a better basis for relating enterprise data to other economic information. □

Learned Profession—A Definition

[A learned profession is] "an occupation, the process of which requires the application of both a broad (general) and a particular (specialized) body of knowledge in a manner that reflects judgment, mental discipline, and intellect."—
Arthur J. Dixon, CPA, at Boca Raton, 1974

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