Productivity trends in two retail trade industries, 1987–95

Productivity rose in two rapidly expanding industries: miscellaneous general merchandise stores—which include warehouse clubs—and catalog and mail-order houses

Mark W. Dumas

Mark W. Dumas is an economist in the Division of Industry Productivity Studies, Bureau of Labor Statistics.

The retail sector of the economy continues to be an important provider of jobs, accounting for 29 percent of employment in the private service-producing sector of the economy in 1995. The Bureau of Labor Statistics (BLS) recently added miscellaneous general merchandise stores (SIC 539) and catalog and mail-order houses (SIC 5961) to its productivity measurement program, enhancing its coverage of the retail sector.[1] The Bureau's labor productivity measurement program now covers 90 percent of the retail trade sector, on an employment basis.

Productivity data for miscellaneous general merchandise stores are available for the 1977–95 period; for catalog and mail-order houses, the data cover the 1982–95 period. Although data for both periods are shown in tables 1 and 2, this article examines only the 1987–95 period. The more recent period was selected because the definition of miscellaneous general merchandise stores changed in 1987 when the Standard Industrial Classification (SIC) system was revised.[2] Furthermore, 1987 and 1995 are appropriate for comparison because both years are at roughly the same point in the expansion or recovery stage of the business cycle.

Productivity and related trends

Productivity, as measured by output per hour,[3] increased in both industries over the 1987–95 period, growing by 6.5 percent per year in miscellaneous general merchandise stores, and by 2.7 percent per year in catalog and mail-order houses. The rate of growth in miscellaneous general merchandise stores was particularly notable relative to those of the other 20 published industries in the retail trade sector, with only one industry—radio, television, and computer stores—recording a higher rate of growth (8.8 percent per year). Even the growth rate for catalog and mail-order houses, though lower than that for miscellaneous general merchandise stores, exceeded the average annual rates of all but four measured retail trade industries.[4]

Output also increased in both industries over the 1987–95 period, rising by 6.0 percent per year in miscellaneous general merchandise stores, and by 8.6 percent per year in catalog and mail-order houses.[5] Again, these were among the highest growth rates in the retail sector, exceeded only by the 12-percent increase in radio, television, and computer stores.

Trends in hours worked, the other component of productivity, diverged for the two industries over the 1987–95 period. Average annual hours of all persons rose by 5.7 percent per year in catalog and mail-order houses, while declining by 0.5 percent per year in miscellaneous general merchandise stores. The increase in catalog and mail-order houses over the period was the largest rate of growth in hours in the measured retail trade sector.

Productivity in the miscellaneous general merchandise stores industry increased each year from 1987 to 1995. These increases ranged from as little as 0.8 percent in 1988, to as much as 17.5 percent in 1993. Similar trends were exhibited in output, with positive growth recorded every year. Changes in hours of all persons, on the other hand, were more varied, with declines occurring in 4 of the 8 years covering the 1987–95 period.

For catalog and mail-order houses, productivity declined in 2 of the years between 1987 and 1995, with the largest decline—8.3 percent in 1990—occurring in conjunction with the only recorded decline in output. Hours, however, rose in each of the years between 1987 and 1995.

Industry characteristics

The miscellaneous general merchandise stores industry (SIC 539) includes establishments primarily engaged in the retail sale of apparel, dry goods, hardware, housewares or home-furnishings, groceries, and other lines in limited amounts. A change in industry definition was incorporated into the measure in 1987. As a result of that SIC change, department stores with fewer than 50 employees are now included in this industry. Other examples of establishments in this industry include catalog showrooms and warehouse clubs. The decline in the fortunes of many catalog showrooms has been offset by growth among warehouse clubs.

The catalog and mail-order houses industry (SIC 5961) comprises establishments primarily engaged in the retail sale of products by television, catalog, and mail-order. Important product lines include apparel, books, computer equipment, prescription drugs, jewelry, and recorded music. In addition to the establishments indicated by the industry's title, catalog and mail-order houses also include video retailers ("home shopping by TV"). (As noted above, catalog *showrooms* are classified under miscellaneous general merchandise stores, rather than in this industry.) Industry output, driven by the growth in popularity of this shopping alternative among consumers, has been tempered by increased competition and rising paper prices and postal costs. Many firms seem to be primed to take advantage of "cybershopping," if perceptions of privacy and security issues, particularly regarding credit card use, can be overcome.[6]

Output

Output in miscellaneous general merchandise stores grew at an average annual rate of 6.0 percent per year over the 1987–95 period. This growth occurred in the face of divergent trends within the industry. Catalog showrooms, for example, have continued to lose favor with the shopping public, while warehouse stores have increased in popularity. Both segments, however, remained fiercely competitive, resulting in an industry shakeout and subsequent consolidation.

Catalog showrooms, successful for many years, witnessed a decline in business over the 1987–95 period as a result of intense competition with discount stores. For many years, catalog showrooms were protected from direct competition by "fair trade" laws, which prevented other retailers from selling directly to consumers below manufacturers' suggested retail prices. Once the catalog showrooms lost the price advantage provided by these laws, consumers also grew impatient with their format. In a traditional catalog showroom, inventory is stored at the location, but usually is not readily accessible for purchase. Instead, customers order from a catalog and wait while the merchandise is delivered from the stockroom. Discount stores, on the other hand, offer merchandise that is readily available on the shelves. As a result, they have become increasingly popular among consumers. Catalog showrooms that did not in some way differentiate their product—for example, by upgrading merchandise or niche-marketing such items as jewelry, gifts, or housewares—were vulnerable, and subsequently many have gone out of business. Those showrooms that continue to operate successfully have also integrated into their operations new technologies, allowing them to better target their market, focus on their most profitable lines, avoid stockouts, and keep inventory costs down.[7]

Table 1. Productivity and related indexes in the miscellaneous general merchandise stores industry (SIC 539), 1977–95

[1987=100]

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
1977	52.8	55.8	51.5	97.4	92.3
1978	60.5	62.1	56.7	93.7	91.4
1979	66.0	64.8	56.5	85.6	87.3
1980	69.3	69.1	54.1	78.0	78.3
1981	65.7	66.6	53.7	81.7	80.6
1982	60.9	62.4	50.9	83.6	81.6
1983	72.0	73.1	58.6	81.4	80.2
1984	78.6	76.8	66.4	84.5	86.5
1985	80.9	80.8	76.1	94.0	94.2
1986	97.5	97.5	89.6	91.9	91.9
1987	100.0	100.0	100.0	100.0	100.0
1988	100.8	100.7	105.5	104.7	104.8
1989	109.8	110.9	115.6	105.3	104.2
1990	116.4	118.2	122.1	104.9	103.3
1991	121.8	126.9	130.8	107.4	103.0
1992	136.1	141.8	143.0	105.0	100.9
1993	159.9	166.5	154.0	96.3	92.5
1994	161.6	168.7	156.0	96.5	92.5
1995	165.9	171.9	158.8	95.7	92.4
	Average annual rates of change (in percent)				
1977–95	6.6	6.5	6.5	-0.1	0.0
1987–95	6.5	7.0	6.0	-.5	-1.0

In contrast, the warehouse club format, which barely existed at the outset of the 1980s, has, for the most part, enjoyed sustained growth over the 1987–95 period. Warehouse stores usually are large in size—typically 100,000 square feet—and sometimes have restricted membership qualifications. They generally sell groceries; automotive tires, batteries, parts, and accessories; audio and video equipment; household appliances; and office equipment in a warehouse-type setting. Quantities of items for purchase often are limited and available only in bulk sizes. The category grew from 281 establishments in 1987 to 616 establishments in 1992, the latest year for which data are available. Warehouse clubs now account for 62 percent of sales in the miscellaneous general merchandise stores industry. The growth has been tempered recently by competition, both within the industry and from without. As a result, the industry has been consolidating, store sizes have declined, and a more appealing merchandise mix has been offered.[8]

Table 2. Productivity and related indexes in the catalog and mail-order houses industry (SIC 5961), 1982–95

[1987=100]

Year	Output per hour of all persons	Output per person	Output	Hours of all persons	All persons
1982	65.3	67.5	59.9	91.8	88.8
1983	68.5	72.2	66.0	96.4	91.4
1984	80.6	85.0	76.5	94.9	90.0
1985	80.8	84.7	79.4	98.3	93.7
1986	87.2	90.7	85.2	97.7	93.9
1987	100.0	100.0	100.0	100.0	100.0
1988	107.3	103.8	111.8	104.2	107.7
1989	111.4	108.7	119.6	107.4	110.0
1990	102.1	98.4	117.2	114.8	119.1
1991	107.2	107.2	128.7	120.0	120.0
1992	113.8	120.5	150.1	131.9	124.6
1993	121.0	128.7	164.2	135.7	127.6
1994	120.0	127.6	181.4	151.2	142.1
1995	123.9	128.4	193.2	155.9	150.5
	Average annual rates of change (in percent)				
1982–95	5.1	5.1	9.4	4.2	4.1
1987–95	2.7	3.2	8.6	5.7	5.2

Output in the catalog and mail-order houses industry (SIC 5961) also grew over the period, increasing by 8.6 percent per year between 1987 and 1995. Growth has resulted from consumers' increasing need for convenience and their greater willingness to shop by catalog. Although catalog retailers have enjoyed success, sales can be adversely affected by increases in paper costs and postal rates. Such factors have recently required catalog companies to better target their customers, and to reduce the number and size of the catalogs mailed. Also, the relative success of the industry has encouraged other firms to enter the market. The resulting increase in competition has led to an industry shakeup, with many firms posting losses, going out of business, or both.[9]

Employment

Over the 1987–95 period, total employment in miscellaneous general merchandise stores declined by 8.0 percent, from 220,900 in 1987 to 204,100 in 1995, falling at an average annual rate of 1.0 percent.[10] Between 1987 and 1988, the total number of persons employed in the industry actually increased; in each of the subsequent years, however, employment fell or showed no change. Hours of all persons also fell over the period, declining by about 4 percent, or 0.5 percent per year.

Employment and hours in miscellaneous general merchandise stores have been affected by overall trends in the industry. The closing of all but the most successful catalog showrooms has resulted in layoffs, for example. Even in the relatively healthy warehouse segment, the intense competition among firms has led to industry consolidation and subsequent short-term employment reductions. At the same time, firms remaining in the industry have introduced technologies automating many functions that, in part, may be driving employment levels further downward.

In contrast, total employment in catalog and mail-order houses rose 50 percent between 1987 and 1995, growing from 143,300 to 215,600, an increase of 5.2 percent per year. Each year witnessed an increase in employment, with the largest single increase of 11.4 percent coming in 1994. Hours of all persons exhibited similar trends in this industry, increasing in every year of the period, at an annual rate of 5.7 percent. Increases in employment and hours have occurred in conjunction with the surge in popularity of mail-order shopping. With their emphasis on customer service, many of these firms are "open" for orders 24 hours a day.

Employment data for both miscellaneous general merchandise stores and catalog and mail-order houses are available for nonsupervisory workers, supervisory workers, the self-employed, and unpaid family workers. Nonsupervisory workers, which include sales persons, cashiers, clerks, and stock workers, account for more than 80 percent of total employment in both industries. Thus, trends in nonsupervisory employment usually tend to mirror those of all persons. Nonsupervisory employment dropped in miscellaneous general merchandise stores, while rising in catalog and mail-order houses. Employment of supervisory workers—office supervisors, store managers, assistant managers—and the self-employed, however, increased in both industries. In the miscellaneous general merchandise stores industry, supervisory employment rose slightly, by 5.0 percent, between 1987 and 1995. In catalog and mail-order houses, supervisory employment grew threefold over the same period. The number of self-employed persons increased from 7,000 to 9,000 in miscellaneous general merchandise stores, and from 8,000 to 14,000 in catalog and mail-order houses between 1987 and 1995. The number of unpaid family workers in each of the industries is negligible.[11]

Average hourly earnings for nonsupervisory workers in miscellaneous general merchandise stores in 1995 were close to the average hourly earnings for all retail trade employees, while earnings for the same workers in the catalog and mail-order houses industry were more than 10 percent higher than the retail average. Earnings in both industries, however, trailed those of all private nonfarm employees. Earnings were more than 20 percent lower than the private nonfarm average in both miscellaneous general merchandise stores and catalog and mail-order houses.

Outlook

The retail sector continues to be fiercely competitive. With the addition of new retail outlets and the advent of new formats, this is unlikely to change. An example of a new format is the so-called "category killer," in which a large store is devoted to a specific category of merchandise, such as books.[12] The industries examined in this article will not be immune to these trends. Firms that remain innovative in merchandising and product offering, while investing in new technologies, will be in a better position to thrive.

The miscellaneous general merchandise stores industry may continue to grow, especially if the warehouse club segment continues to dominate this sector. Although growth for warehouse clubs has slowed since the early 1990s, after years of double-digit increases in sales and earnings, the industry's repositioning in the face of competitive challenges appears to have resulted in stabilization. Warehouse clubs have been decreasing store sizes, changing their merchandising mix, adding new services, and opening new locations.[13] Their emphasis on competitive pricing also appeals to the value-oriented customer of the 1990s.

The catalog showroom segment of this industry, on the other hand, has been shrinking over the period of this study. While many firms that remain in the industry are successful, they have done so by focusing on profitable niches and offering a wide variety of products, readily available for purchase off the shelves. As this segment of the miscellaneous general merchandise stores industry continues to evolve, the remaining stores will probably look less and less like traditional catalog showrooms.[14]

Demographic trends continue to favor the catalog and mail-order houses industry, as time-pressured consumers search for more convenient shopping alternatives. Recent data also suggest that, while women account for more than half of catalog shoppers, men are increasingly likely to make catalog purchases. The potential for growth remains high, as catalog and mail-order houses accounted for just 2.6 percent of all retail sales in 1995.[15]

The industry does face some significant challenges. As more firms have entered the industry, the number of catalogs mailed has risen. Those firms that wish to compete successfully will have to differentiate their offerings by specializing in specific lines of merchandise or establishing strong brand recognition. Coupled with the increased competition, catalog and mail-order houses have been faced with rising paper and mailing costs. As a result, catalog firms will have to better target their market by focusing on consumers who are proven buyers, and by reducing their prospecting for new customers. These factors have already taken their toll on the industry, with many firms recently reporting depressed earnings despite sales increases. In an effort to reduce costs, mergers and subsequent consolidations are likely in the future, as are attempts to reduce employment. Severe employment reductions are unlikely, however, because shoppers will continue to expect the high levels of customer service for which the industry is known.[16]

This industry does seem to be in an excellent position to exploit the advantages of new media (such as the World Wide Web) in selling their products, because many of the tools to do so—computers, phone lines, order fulfillment operations—are in place. Some catalog and mail-order houses already include addresses for their World Wide Web sites in advertisements. Although sales via the Web have been minimal to date, there are those who expect this merchandising technique to offer significant promise to those who recognize its potential.[17] □

Footnotes

[1] The miscellaneous general merchandise stores industry is designated by the U.S. Office of Management and Budget as SIC 539 in the *Standard Industrial Classification Manual: 1987*. The catalog and mail-order houses industry is designated as SIC 5961 in the same publication. Complete definitions for each of the industries are contained in the body of this article.

[2] The Standard Industrial Classification (SIC) is the statistical classification standard underlying all establishment-based Federal economic statistics classified by industry. The SIC is used to promote the comparability of establishment data describing various facets of the U.S. economy. The classification covers the entire field of economic activities and defines industries in accordance with the composition and structure of the economy. It is revised periodically to reflect the economy's changing industrial organization. For more information on the SIC system, see the *Standard Industrial Classification Manual:*

1987 (Office of Management and Budget, 1987).

[3] Output per hour is the traditional measure of productivity. Indexes of output per hour measure the changes in the relationship between output and the hours expended in producing that output. To calculate a labor productivity index, an index of industry output is divided by an index of hours. BLS productivity and related indexes are updated and published annually in the BLS publication, *Productivity Measures for Selected Industries*. A technical note describing the methods used to develop the indexes is available from the Office of Productivity and Technology, Division of Industry Productivity Studies. Also see *BLS Handbook of Methods*, Bulletin 2490 (Bureau of Labor Statistics, 1997), ch. 11, "Industry Productivity Measures," pp. 103–9.

[4] All average annual rates of change pertaining to these industries and mentioned in the text or in tables are based on the compound interest method of computation.

[5] Industry output indexes are developed from data collected by the Bureau of the Census and other sources. For trade industries, the indexes are computed from sales data reported in the Census of Retail Trade. Real output in a retail trade industry is calculated by deflating annual total sales for the industry using the appropriate Consumer Price Indexes for each category of merchandise sold by the industry. For a more detailed explanation, see *BLS Handbook of Methods*, Bulletin 2490 (Bureau of Labor Statistics, 1997), ch. 11, "Industry Productivity Measures," pp. 104–5.

[6] See David S. Hilzenrath, "AT&T Adds On-Line Card Protection," *The Washington Post*, Oct. 9, 1996, p. B13; and "Marketing in the Interactive Age" (New York, Direct Marketing Association, 1996).

[7] See Jay L. Johnson, "Service Merchandise: A Survivor's Strategy," *Discount Merchandiser*, April 1993, p. 29; Jennifer Pellet, "Staying True to A $3 Billion Concept," *Discount Merchandiser*, March 1990, pp. 35–38; Rudolph A. Pyatt Jr., "Turning a Page on Catalog Showrooms," *The Washington Post*, Business, Jan. 14, 1991, p. 3; and "The Success of Service Merchandise," *Direct Marketing*, August 1992, pp. 43–44.

[8] See "The True Look," *Discount Merchandiser*, June 1990, p. 61; Industry definition, establishment count, and sales data are available from the *1992 Census of Retail Trade* (Bureau of the Census).

[9] See Margaret Webb Pressler, "Discovery Channels Its Energy Into Another Market and Medium," *The Washington Post*, Business, Nov. 6, 1995, p. 17; Margaret Webb Pressler, "A Catalog of Ills," *The Washington Post*, July 14, 1995, p. B2; James Walsh, "Retailing," *1994 U.S. Industrial Outlook* (U.S. Department of Commerce, 1994), p. 39–4; and Sharon Walsh, "Catalogue Retailer Seeks Protection From Creditors," *The Washington Post*, Feb. 9, 1991, p. C1.

[10] Industry employment data in this article differ somewhat from figures published by the BLS Current Employment Statistics (CES) program. The Office of Productivity and Technology (OPT) computes its own employment series for productivity measurement, in which data on the self-employed and unpaid family workers from the Current Population Survey (CPS) are added to data on payroll employment from the CES program. For more information on this topic, see *BLS Handbook of Methods*, pp.103–9.

[11] Data for self-employed and unpaid family workers are obtained from the Current Population Survey (CPS), a monthly sample survey of about 50,000 households conducted by the Bureau of the Census for the Bureau of Labor Statistics. Data for supervisory and nonsupervisory employment are obtained from the Current Employment Statistics (CES) survey. The CES collects data from a sample of nonfarm establishments consisting of over 390,000 reporting units.

[12] Margaret Webb Pressler and Steven Pearlstein, "Growing Out of Business," *The Washington Post*, Feb. 22, 1996, p. A8.

[13] *1994 U.S. Industrial Outlook*, 1994, p. 39–4.

[14] See Margaret Webb Pressler, "Changing the Order of Business," *The Washington Post*, Mar. 13, 1996, p. C1; Rudolph A. Pyatt, Jr., "Turning a Page on Catalog Showrooms," *The Washington Post*, Business, Jan. 14, 1991, p. 3; and David Segal, "Best Products Files for Bankruptcy Protection," *The Washington Post*, Sept. 25, 1996, p. F1.

[15] See Laura Christiana-Beaudry, "Who Buys & Why," *Catalog Age*, July 1996; Margaret Webb Pressler, "The Lillian Vernon Way," *The Washington Post*, Nov. 23, 1996, p. D1; and Pressler and Pearlstein, "Growing Out of Business."

[16] See Pressler, "The Lillian Vernon Way"; Pressler, "Discovery Channels Its Energy Into Another Market and Medium"; Pressler, "A Catalogue of Ills"; and *DMA Study Reveals Direct Marketing Practices & Trends* (Direct Marketing Association, June 1996).

[17] "Marketing In the Interactive Age" (New York, Direct Marketing Association, 1996).