

Administration essay



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The metal container industry had changed inconsiderably since Connelly took over Crown's reins in 1957. American National had just been acquired by France's state-owned Eyepiece International, making it the world's largest beverage can producer. Continental Can, another long-standing rival, was now owned by Peter Swell Sons, a privately held construction firm. In 1989, all, or part of Continentals can-making operations, appeared to be for sale. Reynolds Metals, a traditional supplier of aluminum to can makers, was now also a formidable competitor in cans.

The moves by both suppliers and customers of can makers to integrate into can manufacturing themselves had profoundly redefined the metal can industry since John Connelly arrival. Reflecting on these dramatic changes, Avery wondered whether Crown, with \$1.8 billion in sales, should consider bidding for all or part of Continental Can. Avery also wondered whether Crown should break with tradition and expand its product line beyond the manufacture of metal cans and closures. For 30 years Crown had stuck to its core business, metal can making, but analysts saw little growth potential for metal cans in the sass.

Industry observers recast plastics as the growth segment for containers. As Avery mulled over his options, he asked: Was it finally time for a change? The Metal container Industry The metal container industry, representing 61% of all packaged products in the United States in 1989, produced metal cans, crowns (bottle caps), and closures (screw caps, bottle lids) to hold or seal an almost endless variety of consumer and industrial goods. Glass and plastic containers split the balance of the container market with shares of 21% and 1 respectively.

Metal cans served the beverage, food, and general packaging Industries. Metal cans were made of aluminum, steel, or a combination of both. Three-piece cans were formed by rolling a sheet of metal, soldering it, cutting it to size, and attaching two ends, thereby creating a three-piece, seamed can. Steel was the primary raw material of three-piece cans, which Professor Stephen P. Bradley and Research Associate Sheila M. Caving prepared this case. HOBBS cases are developed solely as the basis for class data, or illustrations of effective or ineffective management.

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Two-piece cans, developed in the sass, were formed by pushing a flat blank of metal into a deep up, eliminating a separate bottom, a molding process termed “ drawn and ironed. ” While aluminum companies developed the original technology for the two-piece can, steel companies ultimately followed suit with a thin-walled steel version. By 1983, two-piece cans dominated the beverage industry where they were the can of choice for beer and soft drink makers. Of the 120 billion cans produced in 1989, 80% were two-piece cans.

Throughout the decade of the sass, the number of metal cans shipped grew by an annual average of 3.7%. Aluminum can growth averaged 8% annually, while steel can shipments fell by an average of 3. % per year. The number of aluminum cans produced increased by almost 200% during the period 1980-1989, reaching a high of 85 billion, while steel can production dropped by 22% to 35 billion for the same period (see Exhibit 1). Industry Structure Five firms dominated the \$12.2 billion U. S. Metal can industry in 1989, with an aggregate 61% market share.

The country's largest manufacturer? American National Can? held a 25% market share. The four firms trailing American National in sales were Continental Can (18% market share), Reynolds Metals (7%), Crown Cork & Seal (7%), and Ball Corporation (4%). Approximately 100 firms served the balance of the market. Pricing Pricing in the can industry was very competitive. To lower costs, managers sought long runs of standard items, which increased capacity utilization and reduced the need for costly changeovers. As a result, most companies offered volume discounts to encourage large orders.

Despite persistent metal can demand, industry operating margins fell approximately 7% to roughly 4% between 1986 and 1989. Industry analysts attributed the drop in operating margins to (1) a 15% increase in aluminum can sheet prices at a time when most can makers had guaranteed volume rises that did not incorporate substantial cost increases; (2) a 7% increase in beverage can production capacity between 1987 and 1989; (3) an increasing number of the nation's major brewers producing containers in house; and (4) the following costly battles for market share, soft drink bottlers used their

leverage to obtain packaging price discounts. Over capacity and a shrinking customer base contributed to an unprecedented squeeze on manufacturers' margins, and the can manufacturers themselves contributed to the margin deterioration by aggressively discounting to protect market share. As one manufacturer confessed, " When you look at the beverage can industry, it's no secret that we are selling at a lower price today than we were 10 years ago. " Customers Among the industry largest users were the Coca-Cola Company, Enhancers-Busch Companies, Inc. , Pepsico Inc. , and Coca-Cola Enterprises Inc. (see Exhibit 2).

Consolidation within the soft drink segment of the bottling industry reduced the number of bottlers from approximately 8, 000 in 1980 to about 800 in 1989 and placed a significant amount of beverage volume in the hands of a few large companies. 2 Since the can constituted about 45% of the total cost of a cadged beverage, soft drink bottlers and brewers usually maintained relationships with more than one can supplier. Poor service and uncompetitive prices could be punished by cuts in order size. Distribution Due to the bulky nature of cans, manufacturers located their plants close to customers to minimize transportation costs.

The primary cost components of the metal can include 1 Salomon Brothers, Beverage Cans Industry Report, March 1, 1990. AT. Davis, " Can Do: A Metal Container Update," Beverage World None 1990): 34. 2 (1) raw materials at 65%; (2) direct labor at 12%; and (3) transportation at roughly . 5%. Various estimates placed the radius of economical distribution for a plant at between 150 and 300 miles. Beverage can producers preferred aluminum to steel because of aluminum's lighter weight and lower shipping costs. In 1988,

steel cans weighed more than twice as much as aluminum. The costs incurred in transporting cans to overseas markets made international trade uneconomical. Foreign markets were served by Joint ventures, foreign subsidiaries, affiliates of U. S. Can manufacturers, and local overseas firms. Manufacturing Two-piece can lines cost approximately \$16 million, and the investment in peripheral equipment raised the per-line cost to \$20-\$25 million. The minimum efficient plant size was one line and installations ranged from one to five lines. While two-piece can lines achieved quick and persistent popularity, they did not completely replace their antecedents? the three-piece can lines.

The food and general packaging segment? representing 28% of the metal container industry in 1989? continued using three-piece cans throughout the sass. The beverage segment, however, had made a complete switch from three-piece to two-piece cans by 1983. A typical three-piece can production line cost between \$1. And \$2 million finishing line could handle the output of three or four can-forming lines, the minimum efficient plant required at least \$7 million in basic equipment. Most plants had 12 to 15 lines for the increased flexibility of handling more than one type of can at once.

However, any more than 15 lines became unwieldy because of the need for duplication of set-up crews, maintenance, and supervision. The beverage industry switch from three- to two-piece lines prompted many manufacturers to sell complete, fully operational three-piece lines “ as is” for \$175, 000 to \$200, 000. Some firms shipped their old lines overseas to their foreign operations where growth potential was great, there were few entrenched firms, and canning technology was not well understood. Suppliers Since the

invention of the aluminum can in 1958, steel had fought a losing battle against aluminum.

In 1970, steel accounted for 88% of metal cans, but by 1989 had dropped to 29%. In addition to being lighter, of higher, more consistent quality, and more economical to recycle, aluminum was also friendlier to the taste and offered superior lithography qualities. By 1989, aluminum accounted for 99% of the ere and 94% of the soft drink metal container businesses, respectively. The country's three largest aluminum producers supplied the metal can industry. Alcoa, the world's largest aluminum producer with 1988 sales of \$9. 8 billion, and Local, the world's largest marketer of primary aluminum, with 1988 sales of \$8. Billion, supplied over 65% of the domestic can sheet requirements. Reynolds Metals, the second-largest aluminum producer in the United States, with 1988 sales of \$5. 6 billion, supplied aluminum sheet to the industry and also produced about 11 billion cans itself. Reynolds Metals was the only aluminum company in the United States that produced cans (see Exhibit 3). Steel's consistent advantage over aluminum was price. According to The American Iron and Steel Institute in 1988, steel represented a savings of from \$5 to \$7 for every thousand cans produced, or an estimated savings of \$500 million a year for can manufacturers.

In 1988, aluminum prices increased J. J. Sheehan, " Nothing Succeeds Like Success," Beverage World (November 1988): 82. Joins 1985, aluminum cans were restricted to carbonated beverages because it was the carbonation that prevented the can from collapsing. Reynolds discovered that by adding liquid nitrogen to the can's contents, aluminum containers could hold incorporated

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beverages and still retain their shape. The liquid nitrogen made it possible for Reynolds to make cans for liquor, chocolate drinks, and fruit juices. ³ an estimated 15%, while the lower steel prices increased by only 5% to 7%.

According to a representative of Alcoa, the decision on behalf of the firm to limit aluminum Industry Trends The major trends characterizing the metal container industry during the sass included (1) the continuing threat of in-house manufacture; (2) the emergence of elastics as a viable packaging material; (3) steady competition from glass as a substitute for aluminum in the beer market; (4) the emergence of the soft drink industry as the largest end-user of packaging, with aluminum as the primary beneficiary; and (5) the diversification of, and consolidation among, packaging producers.

In-house manufacture Production of cans at “captive” plants? those producing cans for their own company use? accounted for approximately 25% of the total can output in 1989. Much of the expansion in in-house manufactured cans, which persisted wrought the sass, occurred at plants owned by the nation’s major food producers and brewers. Many large brewers moved to hold can costs down by developing their own manufacturing capability. Brewers found it advantageous to invest in captive manufacture because of high-volume, single-label production runs.

Adolph Coors took this to the extreme by producing all their cans in-house and supplying almost all of their own aluminum requirements from their 130 million-pound sheet rolling mill in San Antonio, Texas. ⁶ By the end of the sass, the beer industry had the capacity to supply about 55% of its beverage can needs. Captive manufacturing was not widespread in the soft drink

industry, where many small bottlers and franchise operations were generally more dispersed geographically compared with the brewing industry.

Soft drink bottlers were also geared to low-volume, multilevel output, which was not as economically suitable for the in-house can manufacturing process. Throughout the 1980s, plastics was the growth leader in the container industry with its share growing from 9% in 1980 to 18% in 1989. Plastic bottle sales in the United States were estimated to reach \$3.5 billion in 1989, with food and beverage sales buoyed by soft drinks sales accounting for 50% of the total. Plastic bottles accounted for 11% of domestic soft drink sales, with most of its penetration coming at the expense of glass.

Plastic's light weight and convenient handling contributed to widespread consumer acceptance. The greatest challenge facing plastics, however, was the need to produce a material that simultaneously retained carbonation and prevented infiltration of oxygen. The plastic bottle often allowed carbonation to escape in less than 4 months, while aluminum cans held carbonation for more than 16 months. Heileman-Busch claimed that U. S. Brewers expected beer containers to have at least a 90-day shelf-life, a requirement that had not been met by any plastic can or bottle. Additionally, standard production lines that filled 2,400 beer cans per minute required containers with perfectly flat bottoms, a feature difficult to achieve using plastic. 9 Since 1987, the growth of plastics slowed somewhat apparently due to the impact on the Merrill Lynch Capital Markets Containers and Packaging Industry Report, March 21, 1991. Salomon Brothers Inc. Containers/Packaging: Beverage Cans Industry Report, April 3, 1991. A. Sago's, "Aluminum Girds For The Plastic Can Bid," Chemical Week (January 16, 1985): 18. B. Oman, "A <https://assignbuster.com/administration-essay/>

Clear Choice? ” Beverage world (June 1990): 78. Environment of plastic packaging. Unlike glass and aluminum, plastics recycling was not a “ closed loop” system. 10 There were many small players producing plastic containers in 1988, often specializing by end-use or geographic region. However, only seven companies had sales of over \$100 million. Emotionless, the largest producer of plastic containers, specialized in custom-made bottles and closures for food, health and beauty, and pharmaceutical products. It was the leading supplier of prescription containers, sold primarily to drug wholesalers, major drug chains, and the government.

Constant, the second-largest domestic producer of plastic containers, acquired its plastic bottle operation from Owens-Illinois, and relied on plastic soft drink bottles for about two-thirds of its sales. Johnson Controls produced bottles for the soft drink industry from 17 U. S. Plants and six non-U. S. Plants, and was the largest producer of plastic bottles for water and liquor. American National and Continental Can both produced plastic bottles for food, beverages, and other rodents such as tennis balls (see Exhibit 4 for information on competitors).

Glass Glass bottles accounted for only 14% of domestic soft drink sales, trailing metal cans at 75%. The cost advantage that glass once had relative to plastic in the popular 16-ounce bottle size disappeared by the mid-sass because of consistently declining resin prices. Moreover, soft drink bottlers preferred the metal can to glass because of a variety of logistical and economic benefits: faster filling speeds, lighter weight, compactness for inventory, and transportation efficiency.

In 1989, the delivered cost including closure and label) of a 12-ounce can (the most popular size) was about 15% less than that of glass or plastic 16-ounce bottles (the most popular size).¹¹ The area in which glass continued to outperform metal, however, was the beer category where consumers seemed to have a love affair with the “long neck” bottle that would work to its advantage in the coming years.¹² Soft drinks and aluminum cans

Throughout the sass, the soft drink industry emerged as the largest end-user of packaging. In 1989, soft drinks captured more than 50% of the total beverage market.

The soft drink industry accounted for 42% of metal cans shipped in 1989? up from 29% in 1980. The major beneficiary of this trend was the aluminum can. In addition to the industry continued commitment to advanced technology and innovation, aluminum’s penetration could be traced to several factors: (1) aluminum’s weight advantage over glass and steel; (2) aluminum’s ease of handling; (3) a wider variety of¹³ Aluminum’s growth was also supported by the vending machine market, which was built around cans and dispensed approximately 20% of all soft drinks in 1989.

An estimated 60% of Coca Cola’s and 50% of Pepsin’s beverages were packaged in metal cans. Coca Cola Enterprises and Pepsi Cola Bottling Group together accounted for 22% of all soft drink cans shipped in 1989.¹⁴ In 1980, the industry shipped 15.9 billion aluminum soft drink cans. By 1989, that figure had increased to 49.2 billion cans. This increase, representing a 12% average annual growth rate, was achieved during a decade that experienced a 3.6% average annual increase in total gallons of soft drinks

consumed. In response to public concern, the container industry developed highly efficient “closed loop” recycling systems.

Containers flowed from the manufacturer, through the wholesaler/distributor, to the retailer, to the consumer, and back to the manufacturer or material supplier for recycling. Aluminum’s high recycling value permitted can manufacturers to sell cans at a lower cost to beverage producers. The reclamation of steel cans lagged that of aluminum because collection and recycling did not result in significant energy or material cost advantages. 1 IN. Lang, “A Touch of Glass,” *Beverage World* (June 1990): 36. Lang, “A Touch of Glass.” *J. S. Industrial Outlook, 1984-1990*. 4th First Boston Corporation, *Packaging Industry Report*, April 4, 1990. 5 Diversification and consolidation Low profit margins, excess capacity, and rising material and labor costs prompted a number of corporate diversification and subsequent consolidations throughout the 1980s and 1990s. While many can manufacturers diversified across the spectrum of rigid containers to supply all major end-use markets (food, beverages, and general packaging), others diversified into unpacking businesses such as energy (oil and gas) and financial services.

Over a 20-year period, for example, American Can reduced its dependence on domestic can manufacturing, moving into totally unrelated fields, such as insurance. Between 1981 and 1986 the company invested \$940 million to acquire all or part of six insurance companies. Ultimately, the packaging businesses of American Can were acquired by Triangle Industries in 1986, with the financial services businesses re-emerged as Primaries. Similarly,

Continental Can broadly diversified its holdings, changing its name to Continental Group in 1976 when can sales dropped to 38% of total sales.

In the sass, Continental Group invested heavily in energy exploration, research and remonstrations, but profits were weak and they were ultimately taken over by Peter Kiewit Sons in 1984. While National Can stuck broadly to containers, it diversified through acquisition into glass containers, food canning, pet foods, bottle closures, and plastic containers. However, instead of generating future growth opportunities, leadership of John W. Fisher, Ball Corporation, a leading glass bottle and can maker, expanded into the high-technology market and by 1987 had procured \$180 million in defense contracts.

Fisher directed Ball into such fields as petroleum engineering equipment, photo-engraving and plastics, and established the company as a leading manufacturer of computer components. Major Competitors in 1989 For over 30 years, three of the current five top competitors in can manufacturing dominated the metal can industry. Since the early sass, American Can, Continental Can, Crown Cork & Seal, and National Can held the top four rankings in can manufacturing. A series of dramatic mergers and acquisitions among several of the country's leading manufacturers throughout the sass served to shift as well as consolidate power at the top.

Management at fourth-ranked Crown Cork & Seal viewed the following four firms as constituting its primary competition in 1989: American National Can, Continental Can, Reynolds Metals, and Ball Corporation. Two smaller companies? Van Odor Company and Weaken Can? were strong competitors

regionally (see Exhibit 5). Representing the merger of two former, long-established competitors, American National? a wholly-owned subsidiary of the Eyepiece International Group? generated sales revenues of \$4. Billion in 1988. In 1985, Triangle Industries, a New Jersey-based maker of video games, vending machines and jukeboxes, bought National Can for \$421 million. In 1986, Triangle bought the U. S. Packaging businesses of American Can for \$550 million. In 1988, Triangle sold American National Can (NC) to Eyepiece, S. A. , the French state-owned industrial concern, for \$3. 5 billion. Eyepiece was the world's third-largest producer of aluminum and, through its Cabal Group, a major European manufacturer of packaging.

A member of the Eyepiece International Group, NC was the largest beverage can maker in the world? producing more than 30 billion cans annually. With more than 100 facilities in 12 countries, Ann.'s product line of aluminum and steel cans, glass containers and caps and closures, served the major beverage, food, pharmaceuticals, and cosmetics markets. American National Can & Continental Can Continental Can had long been a financially stable container company; its revenues increased every year without interruption from 1923 through the mid-1980s.

By the mid-1980s, Continental had surpassed American Can as the largest container company in the United States. The year 1984, however, represented a turning point in Continentals history when the company became an attractive target. Kiewit purchased Continental Group for \$2. 75 billion in 1984. Under the direction of Vice Chairman Donald Strum, Kiewit dismantled Continental Group in an effort to make the operation more

profitable. Within a year, Strum had sold \$1.6 billion worth of insurance, gas pipelines and oil and gas reserves.

Staff at Continentals Connecticut headquarters was reduced from 500 to 40. Continental Can generated sales revenues of \$3.3 billion in 1988, ranking it second behind American National. By the late sass, management at Kiewit considered divesting? in whole or in part? Continental Can's packaging operations, which included Continental Can USA, Europe, ND Canada, as well as metal packaging operations in Latin America, Asia, and the Middle East. Reynolds Metals Based in Richmond, Virginia, Reynolds Metals was the only domestic company integrated from aluminum ingot through aluminum cans.

With 1988 sales revenues of \$5.6 billion and net income of \$482 million, Reynolds served the following principal markets: packaging and containers; distributors and fabricators; building and construction; aircraft and automotive; and electrical. Reynolds' packaging and container revenue amounted to \$2.4 billion in 1988. As one of the industry leading can makers, Reynolds was instrumental in establishing new uses for the aluminum can and was a world leader in can-making technology.

Reynolds' developments included high-speed can-forming machinery with capabilities in excess of 400 cans per minute, faster inspection equipment (operating at speeds of up to 2,000 cans per minute), and spun aluminum tops which contained less material. The company's next generation of can end-making technology was scheduled for installation in the early sass.

Founded in 1880 in Muncie, Indiana, Ball Corporation generated operating income of \$113 million on sales revenues of \$1 billion in 1988.

Considered one of the industry lowest producers, Ball was the fifth- largest manufacturer of metal containers as well as the third-largest glass container manufacturer in the United States. Ball's packaging businesses accounted for 82. 5% of total sales and 77. 6% of consolidated operating earnings in 1988. Ball's can-making technology and manufacturing flexibility allowed the company to make shorter runs in the production of customized, higher-margin products designed to meet customers' specifications and needs. In 1988, beverage can sales accounted for 62% of total sales.

Enhancers-Busch, Ball's largest customer, accounted for 14% of sales that year. In 1989, Ball was rumored to be planning to purchase the balance of its 50%-owned joint venture, Ball Packaging Products Canada, Inc. The acquisition would make Ball the number two producer of metal beverage and food containers in the Canadian market. Ball Corporation Van Odor Company The industry next two largest competitors, with a combined market share of 3%, were Van Odor Company and Weaken Can, Inc. Founded in 1872 in Cleveland, Ohio, Van Odor manufactured two product lines: containers and plastic injection molding equipment.

Van Odor was one of the world's largest producers of drawn aluminum containers for processed foods, and a major manufacturer of metal, plastic and composite containers for the paint, petroleum, chemical, automotive, food, injection molding equipment for the plastics industry. The company's Davies Can Division, founded in 1922, was a regional manufacturer of metal and plastic containers. In 1988, Davies planned to build two new can manufacturing plants at a cost of about \$20 million each. These facilities would each produce about 40 million cans annually.

Van Odor's consolidated can sales of \$334 million in 1988 ranked it sixth overall among the country's leading can manufacturers. 7 Weaken Can James Weaken, a Cincinnati coffee merchant, founded Weaken Can in 1901 as a way to package his own products. The company experienced rapid growth and soon contained one of the country's largest metal lithography plants under one roof. Three generations of the Weaken family built Weaken into a strong regional force in the packaging industry. The family sold the business to Diamond International Corporation, a large, diversified publicly held company, in 1965.

Diamond operated Weaken as a subsidiary until 1982 when it was sold to its operating management and a group of private investors. Weaken went public in 1985. With 1988 sales revenues of \$275. 8 million, seventh-ranked Weaken primarily manufactured steel cans for processors, packagers, and distributors of food and pet food. Weaken represented the country's largest regional can maker. Crown Cork & Seal Company Company History In August 1891, a foreman in a Baltimore machine shop hit upon an idea for a better bottle cap? a piece of tin-coated steel with a flanged edge and an insert of natural ark.

Soon this crown-cork cap became the hit product of a new venture, Crown Cork & Seal Company. When the patents ran out, however, competition became severe and nearly bankrupted the company in the sass. The faltering Crown was bought in 1927 by a competitor, Charles Unmans. 15 Under the paternalistic leadership of Unmans, Crown prospered in the sass, selling more than half of the United States and world supply of bottle caps.

He then correctly anticipated the success of the beer can and diversified into can making, building one of the world's largest plants in Philadelphia.

However, at one million square feet and containing as many as 52 lines, it was a nightmare of inefficiency and experienced substantial losses. Although Unmans was an energetic leader, he engaged in nepotism and never developed an organization that could run without him. Following his death in 1946, the company ran on momentum, maintaining dividends at the expense of investment in new plants. Following a disastrous attempt to expand into plastics and a ludicrous diversification into metal bird cages.