

A Supplement to

# BOXBOARD CONTAINERS<sup>®</sup>

*international*

2000 WORLD

# MARKET PROFILE

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# NORTH AMERICA

## UNITED STATES:

### A STRONG CONTENDER IN GLOBAL ECONOMY

*by Sarah Smiley*

The global paper and allied products industry is one of the most important contributors to the overall health of the world economy. Although recognized in many circles as a mature sector, it is also one of the world's most dynamic in terms of product development, technological improvements, distribution and handling, processing and converting and environmental protection.

The industry is continuing to go through a globalization process, in which producers are expanding their raw material holdings; improving product manufacturing; converting and distribution networks; and streamlining order procedures to foreign markets previously seen strictly as competitors. Leading world producers, especially in the developed, industrialized nations, can no longer be contented simply by focusing upon the domestic market for their sales growth. It is essential to expand their customer base to the world marketplace as globalization in the paper and allied products industry continues into the new millennium.

Competition is rapidly increasing from producers in many developing countries, which enjoy a number of cost and raw material advantages over their industrialized counterparts. A number of less developed competitor countries (such as Indonesia and Malaysia) have achieved the same level of technologi-

cal advancement for production, but do not have the inherent costs of environmental compliance that affect the U.S. producer. The growing influence of this globalization process will continue into the next century as global free trade moves more toward a reality and as market access barriers are removed to create a more balanced, open and fair trading marketplace.

## CORRUGATED

The U.S. corrugated and solid fibre box industry enjoyed a fourth consecutive year of significant growth in 1999, as product shipments increased 2.9%. The 1999 increase is in line with trend growth for corrugated product shipments for the past 10 years, even considering the 1.5% decline in 1995.

Domestic corrugators enjoyed record domestic and foreign demand in 1999, which saw the industry ship a record 405.4 billion sq. ft. of finished corrugated boxes, cartons and shipping containers. Shipments of corrugated products represented a little more than 99% (403.3 billion sq. ft.) of the 1999 industry total, while shipments of solid fibre boxes made up the remainder.

The strong growth in the U.S. economy in 1999 resulted in increased U.S. manufacturing output (the principal driving force behind corrugated box demand) and higher shipments of industrial and consumer nondurable goods. Internationally, this growth was tempered by the Asian economic crisis, continued global overcapacity and a strong U.S. dollar.

Corrugated and folding carton see small, though promising, gains in the United States, Canada and Mexico—despite economic lapses in other parts of the world.

*Compiled and Edited  
by Christine Lyall,  
BCI Senior Associate Editor*



Although the industry struggled in the first-half of 1999, it was able to recover in the latter half, buoyed by continued growth in the U.S. economy (real GDP increased nearly 2.7%) and increased domestic consumption.

In 1999, the U.S. corrugated and solid fibre box industry continued to find excellent export opportunities. Exports of a wide variety of corrugated boxes, shipping containers and related packaging materials have increased each year since 1989. Growth has been remarkable over that period because the total quantity of exports has increased as well as the actual number of markets.

In 1999, the industry experienced another year of record demand, despite the Asian financial crisis and the slow growth of many European and Latin American economies. Exports as a percentage of total shipments have grown noticeably over the last eight years, from less than 1% in 1989 to nearly 4% in 1999. Although the overall percentage remains relatively low, exports have become one of the fastest growing end-use segments for U.S. corrugators. The domestic industry's ability to develop new, innovative packaging and shipping commodities to meet the increasingly-stringent demand of foreign customers has enabled U.S. corrugators to become the world's leading exporters of finished corrugated products.

### PRICES, INVENTORIES

In an attempt to smooth out earnings volatility, the need of corporations to

integrate within the industry intensified in 1999. The corrugated industry is more than 80% integrated, and this percentage is rising weekly due to the acquisition strategies of several leading corrugated boxmakers.

In the corrugated industry, consolidation is seen as a necessity to balance supply with demand to support pricing that will encourage growth. Since the disappointing current dollar sales value of 1996, the corrugated box industry has experienced back-to-back years of higher current dollar sales, primarily due to the recovery of prices for domestic corrugators. The Producer Price Index (using 1980 as the base year) shows a slow, moderate increase since the final quarter of 1996, which equates to higher current dollar value sales for the sector over the past couple of years.

The combination of growing domestic and foreign demand and closely-monitored inventories allowed U.S. corrugating converters the opportunity to implement several small price increases in 1998 and 1999. Box prices were able to catch up to the price hikes made for linerboard and corrugating medium in the final quarter of 1998. A recent price increase of 11% to 12% comes from four of the major U.S. corrugated container

manufacturers, making the second round of price increases in 1999.

The U.S. corrugating industry was able to draw down its containerboard (i.e., linerboard and corrugating medium) inventories to manageable levels (about 2,530 tons, which equates to a four-week supply) and to moderate effectively operating levels for most of 1998 and in the early months of 1999.

### INTERNATIONAL COMPETITIVENESS

Domestic exports of corrugated products experienced their ninth consecutive year of growth in quantity and value in 1999, with a 5% increase in value and a 3% increase in volume. Corrugators exported a record 8.2 million metric tons of finished corrugated boxes, containers and related products in 1999.

Despite the Asian financial crisis, U.S. corrugators increased their sales noticeably to Indonesia, China and Thailand. Exports from the United States of corrugated containers and finished packaging commodities were mainly shipped to Mexico (60%) and Canada (20%) in 1999. However, there were large increases in exports to Guatemala, Chile and several other Latin American markets in 1999.

Although imports of corrugated containers and other finished corrugated products totaled only \$157 million in 1999, they did increase for the eighth straight year. The growth in the U.S. economy was the principal driver behind the increase in imports in 1999. The only significant suppliers of corrugated containers and related materials to the U.S. market in 1999 were Canada (72%) and Mexico (6%). Imports from China increased by 17% (5.2 million tons) in 1999 from 4.29 million tons in 1998. Imports from Taiwan are also on the rise from 3.9 million tons in 1998, up 32% to 5.8 million tons in 1999.

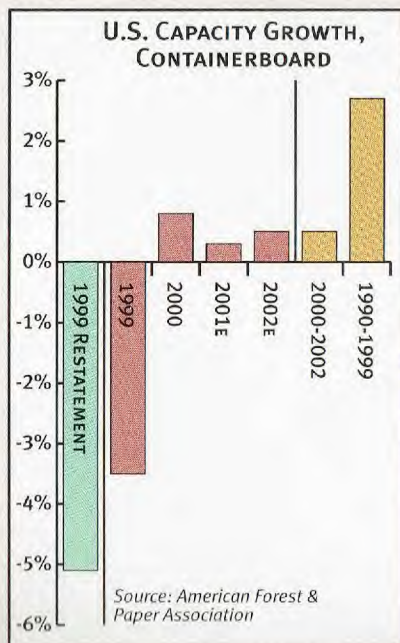
### PROSPECTS FOR 2000

The U.S. corrugated and solid fibre box sector should experience higher

**U.S. CORRUGATED SHIPMENTS**  
(billions of sq.ft.)

YEAR	TOTAL	CORRUGATED	SOLID FIBRE	YEAR-TO-YEAR
				GROWTH
1994	374.808	373.003	1.805	+ 6.0%
1995	372.501	370.566	1.935	- .6%
1996	377.788	375.907	1.881	+ 1.4%
1997	390.130	388.346	1.784	+ 3.3%
1998	395.495	393.620	1.875	+ 1.4%

Source: Fibre Box Association



domestic and foreign demand in 2000, resulting in a 3% increase in shipments. The U.S. economy is expected to continue to grow in 2000, which should result in increased industrial activity and higher shipments of non-durable goods.

If U.S. corrugators are to experience an increase in the current dollar value of shipments, they will have to do a better job of monitoring finished product inventories and adjusting operating rates to reflect current domestic and foreign demand patterns.

Raw material availability may become a problem for the industry in 2000. The combination of additional linerboard and corrugating medium output coming on-line and the recovery of important containerboard export markets in Asia may lead to difficulty for U.S. corrugators to secure adequate box-making materials at reasonable prices. Significant recent mergers in the containerboard sector could potentially affect the availability, flow and price of linerboard and corrugating medium. As a result, U.S. corrugators, especially the independent corrugators, will need to monitor closely their raw material inventories in order to ensure that high production levels are maintained.

Foreign sales will grow next year with exports increasing on a value basis by 5% to \$920 million, which will become a new record high for U.S. corrugators. Despite a slow recovery in important Asian markets, U.S. corrugated box, carton and related product converters should find expanded sales opportunities in traditional markets, as well as develop new markets. Growth in the U.S. economy (with real GDP growth averaging 2.4%) will result in increased imports of cor-

rugated packaging materials.

For 2000, imports are forecast to increase 2% to a new record high of \$159 million, due again to the growing U.S. economy, which provides new sales opportunities for foreign box and carton manufacturers.

In 1999, shipments of nondurable goods made up 76% of the total volume of corrugated boxes and related materials shipments, reflecting a slight decrease over the 1998 share. This share will decrease slightly in 2000 to 75.5%, as durable goods grab a slightly larger share of the sector's shipments. Growth in demand by the food and kindred products (39% of corrugated shipments) and paper and allied products sectors (22% of corrugated shipments) contributed to the increase in the share of nondurable goods in 1999 and will continue to expand in 2000.

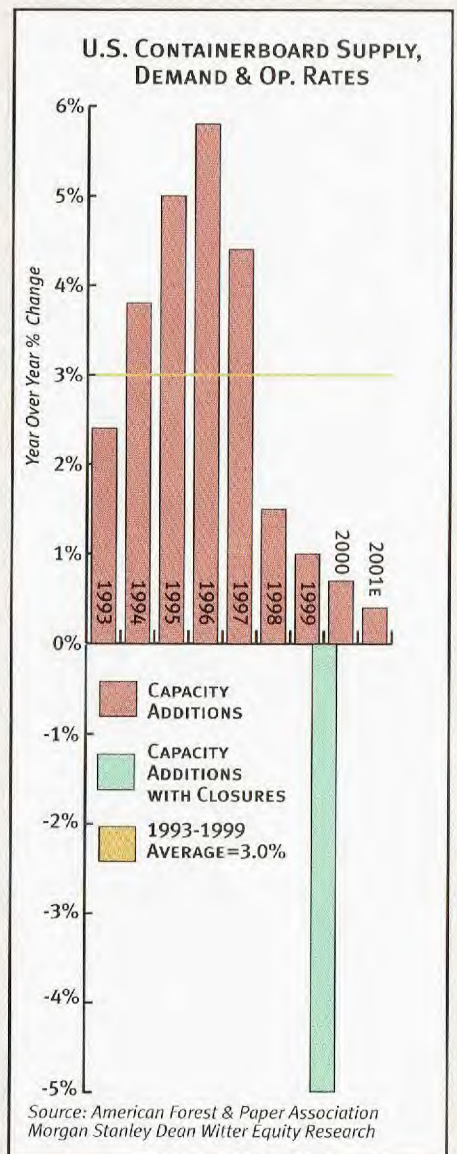
Durable goods made up just over 24.5% of the total corrugated products shipments in 1999, and will increase their percentage of shipments in 2000. The leading durables end-user segments in 2000 will be miscellaneous manufacturing, which includes toys, amusements, sporting and athletic goods (6% of corrugated shipments), electrical machinery, equipment and supplies (4% of corrugated shipments) and stone, clay and glass products (4% of corrugated shipments).

### LONG-TERM PROSPECTS

Product shipments by the U.S. corrugated and solid fibre box sector are expected to grow nearly 3% per year over the next five years. This places the sector first in projected average annual growth among all U.S. paperboard packaging sectors.

The food and kindred products and paper and allied products industries will continue to be the leading end-use markets throughout the forecast period. However, durable goods sectors will—as they have done over the past several years—continue to consume larger quantities of corrugated containers, cartons and boxes.

Competition for domestic and international market share for shipping mediums will likely intensify from flexible plastic films, metal/plastic laminates and related materials, as well as within the paperboard packaging sectors. For instance, in 1999, some customers in



U.S. CORRUGATED PRODUCTION BY TYPE OF BOARD					
YEAR	(billions of sq. ft.)				
	SINGLE FACE	SINGLE WALL	DOUBLE WALL	TRIPLE WALL	TOTAL
1997	4.162	379.025	38.508	2.125	423.820
1998	4.373	382.330	42.027	2.213	430.943

Source: Fibre Box Association

## north america

the food industry (most notably the meat and fresh fruit/vegetable sectors) are beginning to replace traditional brown corrugated boxes with returnable, reusable plastic containers. This trend has been underway for some time in portions of Europe. However, there has been some backlash against plastics due to environmental concerns.

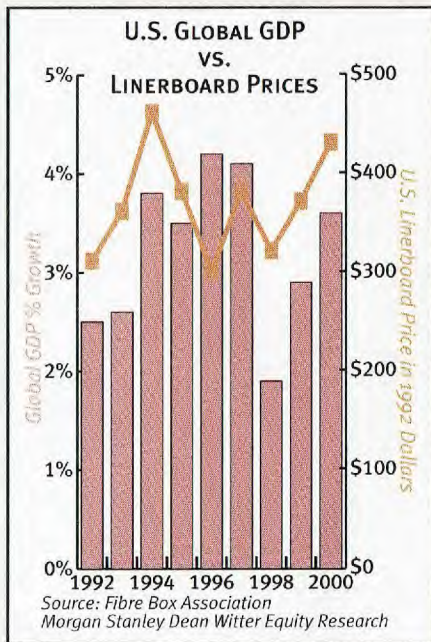
Despite increased competition, corrugated packaging materials should be able to maintain effectively their dominant role as a shipping medium through more innovative, eye-appealing, environmen-

tally-friendly, recyclable cost-effective products that will be increasingly directed to the retail marketplace in the form of consumer-oriented, point-of-purchase displays. The continued growth of large "warehouse-style" grocery outlets offering bulk and jumbo-sized items will provide new marketing and sales opportunities for domestic corrugators.

Although traditional shipping containers (the so-called brown box) will continue to dominate sales into the coming year, specialty corrugated products, which are largely consumer-directed, will show the fastest rate of growth. The development of new small-flutes (known as E-, F- and K-flutes) have opened up many end-user segments previously unattainable for domestic corrugators. These new products are very popular as point-of-purchase consumer-oriented displays in both grocery and other retail stores and outlets.

annualized nine-month 1999 industry data, product shipments (in real terms) increased 1.14% in 1999, following a 0.53% increase in 1998. On a value basis, prices for folding cartons and related products increased modestly in 1999, resulting in a 1% increase in the current dollar value of shipments.

A combination of factors led to the increase in the volume of folding carton product shipments by U.S. box-makers in 1999. These factors included: 1) real GDP growth of 2.7% for the U.S. economy; 2) significant improvements in real disposable income (up 2.7%); 3) strong growth in total U.S. industrial production (up 1.7%); 4) growth in purchases of nondurable goods (up 1.6%); and 5) record U.S. exports of folding cartons and related paperboard box materials (up 0.5% on a volume basis).



## FOLDING CARTONS

The strength of the U.S. economy, which led to increased domestic sales, enabled the industry to enjoy record sales in nearly all of the industries' end-use markets. This is the second consecutive year of marked growth for this sector, following a disappointing sales performance in 1997.

The growth of the industry was tempered in 1999 by the resin-based alternatives that are becoming prominent in the market. Based on

## PRICES, INVENTORIES

Fortunately for the U.S. folding carton industry, the cost of its raw materials (predominantly bleached board, recycled board and kraft paperboard) has changed very little over the past couple of years, which has allowed the industry to control a portion of input costs. According to published price statistics for 1997-99, prices for each of the pertinent raw material grades of folding boxboard changed less than 5% during the period.

According to industry data, the sector's inventory of finished goods was kept at fairly even levels throughout most of 1999, with the exception of

### TOP END-USE MARKETS FOR U.S. CORRUGATED, NON-DURABLE & DURABLE GOODS

(% of sq. ft. shipped; 76.9% share of total shipments in non-durable goods; 22.7% share of total shipments in durable goods)

	1997 - 68.9%	1998 - 65.3%
	34 COMPANIES	31 COMPANIES
	468 PLANTS	461 PLANTS
Food and Kindred Products	39.2	39.2
Paper, Allied Products	22.6	22.6
Chemicals and Allied Products:		
Plastics, Soaps, Detergents,		
Cosmetics, Paints, Enamels, etc.	5.2	5.2
Rubber, Miscellaneous Plastics	4.6	4.6
Miscellaneous Manufacturing, Toys,		
Sporting Goods	5.8	5.8

Source: Fibre Box Association

### VALUE OF U.S. SHIPMENTS OF CORRUGATED (dollars)

YEAR	TOTAL	CORRUGATED	SOLID FIBRE	YEAR-TO-YEAR GROWTH
1994	18,738,419,100	18,609,418,400	129,000,700	+ 11.7%
1995	23,418,799,100	23,263,707,800	155,091,300	+ 25.0%
1996	20,819,155,500	20,674,923,400	144,232,100	- 11.1%
1997	19,280,075,300	19,150,482,600	129,592,700	- 7.4%
1998	20,323,978,500	20,183,677,500	140,301,000	+5.4%

Source: Fibre Box Association

April through June, which is traditionally the season of inventory build-up for the fall sales push. In a year-over-year comparison, finished folding carton inventories increased about 3.5% from 1998 to 1999. The industry's operating rates remained high for most of the year, which contributed to the slight increase in the sector's finished goods inventory. However, domestic producers were able to adjust output and operating levels to prevent a large inventory build-up, which would have contributed to lower prices.

## ENVIRONMENTAL PROFILE

The U.S. folding carton industry has an excellent environmental performance record, surpassing other domestic paper and paperboard segments, as well as other packaging materials, including plastics, metals and glass. The industry has a long-established reputation as a

leading consumer of paper and paperboard, with many of the industry's products containing more than 75% secondary fibre. In many of its applications, there is as much as 100% secondary fibre content.

Unfortunately, the industry's environmental performance is overlooked by many consumers. As a result, the industry has created a mechanism to promote the environmental efforts and benefits of the folding paperboard box industry. In conjunction with the National Paperbox Association (NPA) and the American Forest and Paper Association (AF&PA), the Paperboard Packaging Council (PPC) has created the American Paperboard Packaging Environmental Council (APPEC), which was established to promote the recyclability, renewability, functionality and durability of paperboard containers. To date, the APPEC has established support and recognition

for recovery programs in at least 10 major U.S. cities and has provided product and process informational kits to manufacturers, legislators and the general public.

## PRODUCT, PROCESS INNOVATIONS

The U.S. folding carton industry has been very aggressive over the past decade in improving its overall productivity and expanding its range of products. This industry has the reputation of providing excellent technical and sales service, innovative packaging ideas and flexibility in response to customer requests. As a result, the industry has become increasingly competitive in an increasingly competitive packaging materials market. The industry has enhanced its printing, folding and diecutting technologies in

### "ULTRA SLOW" CAPACITY GROWTH IN UNITED STATES

According to the 40th annual Capacity Survey of the American Forest & Paper Association (AF&PA), U.S. capacity to produce paper and paperboard will increase by an annual average of only 0.7% over the next three years.

Several factors were cited for what appears to be a period of "ultra slow" capacity growth, including a highly competitive trade environment for some grades, competing demands for the industry's capital and mill and machine shutdowns. The AF&PA stated that shutdowns, in particular, had a strong impact, with 577,000 tons of paper and paperboard capacity removed in 1998 and 2.5 million tons in 1999, mostly in the containerboard grades. For chemical paper grade market pulp, removals due to closures were 276,000 tons in 1998 and 786,000 tons in 1999.

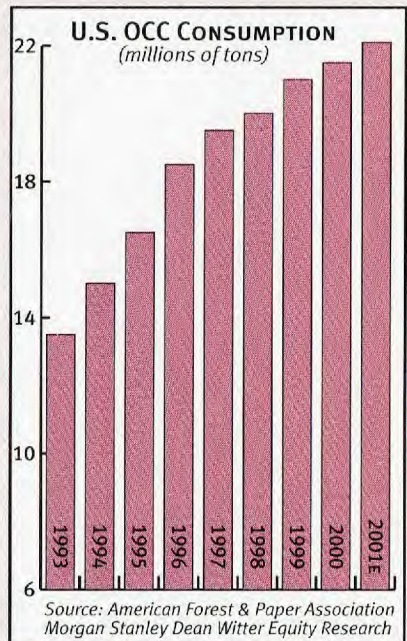
A sharp slowdown in capacity was first identified in the AF&PA's 1998 Capacity Survey, and was confirmed in 1999.

Aggregate U.S. capacity to produce paper and paperboard increased only 0.6% in 1998, then declined to 0.5% in 1999 to 101.3 million tons. For the projected period in the current survey, paper and paperboard capacity is expected to increase 1.1% in 2000; 0.7% in 2001; and 0.4% in 2002.

Containerboard capacity declined 3.5% between 1998 and 1999 to 36.2 million tons. The decline reflected the net impact of several machine/mill closures during the second half of 1998 and the addition of one new machine during late 1999.

Assuming the idled mills remain closed, capacity growth for containerboard is slated to grow at an average annual rate of 0.5% during 2000 to 2002, compared with a 2.7% annual increase during the prior 10 years. Both linerboard and medium capacities are expected to increase at an average annual rate of 0.5% during the same period.

The AF&PA reported that capacity for folding boxboard rose 2.1% in 1999, but growth is expected to ease to 1.2% in 2000; 0.6% in 2001; and 0.3% in 2002. Milk carton and food service board increased 2.5% in 1999 over 1998, to 2.5 million tons, and is expected to remain unchanged during the 2000 to 2002 period.



### U.S. FOLDING CARTON INDUSTRY BILLED SALES TRENDS BY SEGMENT (\$ millions)

SEGMENT	1998 (JAN.-OCT.)	1999 (JAN.-OCT.)	% CHANGE
Folding Carton	614.7	621.8	1.16
Rigid Set-Up	79.2	76.5	3.37

Source: National Paperbox Association

## north america

recent years, thus establishing itself as a quality supplier of environmentally-preferable packaging. Although competition from other packaging alternatives (i.e., plastics, corrugated products) has increased in recent years, the industry has experienced slow, but steady growth in sales over the past decade.

U.S. folding carton producers have expanded their customer bases to include some non-traditional end-user markets. These include cartons and boxes for software and computer-related products, alcoholic beverages including wines and

champagnes, photographic equipment and supplies and new restaurant and fast-food businesses.

U.S. and foreign customers have responded strongly to new lighter-weight, more attractively styled (including multi-colored graphics and designs) and better tamper-resistant features. Using this type of protective, visually appealing packaging, folding carton producers have aggressively pursued increased sales opportunities in the high-value pharmaceutical, soap, cosmetics and toiletries end-user segments, as well as traditional food, bakery and related products segments. In addition, U.S. folding carton producers have improved their overall operating efficiencies in order to keep operating costs down and remain competitive in the large U.S. packaging sector.

the share of the western region continues to slip.

## END-USE MARKET PROFILE

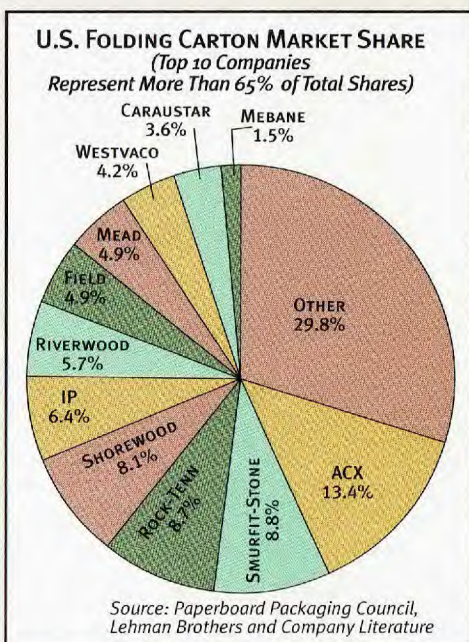
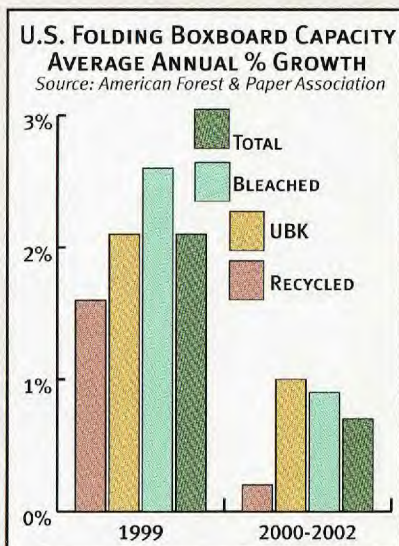
The fastest growing end-user, the beverage carrier industry, continues to be one of the most competitive and innovative sectors for U.S. folding carton producers. As soft drink consumption has increased in recent years, the industry has developed a number of different display units, a variety of carton designs, and creative advertising and packaging products for holding 12 to 24 cans.

With many soft drink companies expanding their product lines to include different varieties (regular vs. diet, caffeine vs. decaffeinated), the folding carton has been able to provide the necessary products and services, depending upon customer requirements. The beer industry has also been responsive to the "cube" and "twin stack" carton adaptations typically used by the soft drink industry. Colorful graphics and eye-catching displays have proven to be effective advertising schemes for domestic beer producers.

Competition in the dry foods area (especially for snack-related foods and breakfast cereals) has increased tremendously in recent years. The snack food and breakfast cereal industries have been very aggressive in their promotional efforts in recent years, and folding carton manufacturers have been able to use new and innovative advertising campaigns and gimmicks to attract many new customers in these dry food segments. In addition, U.S. folding carton producers have created many new products for this competitive sector, including pretzels, popcorn, chips, cookies and a number of different breakfast cereals. The future prospects for this area look equally as positive as these sectors continue to show flexibility in developing new and different dry food varieties.

## INTERNATIONAL COMPETITIVENESS

Exports from the United States of all



## INDUSTRY STRUCTURE

In a presentation that she delivered at the 31st Congress of the European Carton Makers' Association (ECMA) in September, Marla Donahue, president of the PPC, reported there are 543 folding carton plants in the United States. Of those, 393 belong to independent companies, while 150 plants are part of 20 integrated companies.

Donahue told ECMA attendees that the number of manufacturing sites is gradually decreasing. In 1987, there were 606, and in 1992, there were 588.

Shipments by the U.S. folding carton industry are broken down into four principal geographic regions: Eastern, Southern, North Central and Western. The North Central continues to be the leading geographic region for folding carton shipments, accounting for more than 44% of the industry total. The southern and eastern regions follow at about 28% and 20% respectively, while the western region remains at slightly more than 7%. The southern region continues to be the fastest-growing carton-producing region, while

folding carton sector-related commodities in 1999 were 135,700 metric tons and were valued at \$240 million. This represents an increase of 1% and 5%, respectively, over the 1998 levels. In 1999, folding cartons represented about two-thirds of the total quantity shipped, while sanitary food and beverage containers made up one-third.

Exports of sanitary food and beverage containers were 30,800 metric tons in 1999. This represents a 13% decline in the quantity shipped in 1998. This was the second decline in U.S. exports of non-corrugated sanitary food and bev-

erage containers over the past seven years. Fortunately, U.S. suppliers were able to make up for the significant drop in the quantity shipped by increasing prices in certain markets, which actually resulted in an overall increase in the value of U.S. exports. On a quantity basis, the leading U.S. sanitary food and beverage container export markets in 1999 were Mexico (25%), Canada (35%) and Panama (10%).

In 1999, U.S. exports of finished folding cartons were 104,900 metric tons. This reflects a 3.4% increase in the volume of exports. The increase in foreign

demand, combined with the local folding carton shortages in certain Asian and Latin American markets, enabled the industry to pass along several price increases in 1999, thus boosting the value of those shipments.

Due to the recovery of certain Asian economies in 1999, U.S. suppliers of folding cartons were able to improve their exports to some East Asian markets, including Hong Kong (up 28%). The leading U.S. export markets (quantity basis) for finished folding cartons in 1999 were Canada (43%), Mexico (38%) and China (5%).

### LESS IS MORE

After shedding a bit of the excess weight it had accumulated over the last 10 years, the U.S. containerboard industry is slimmer, trimmer and primed to perform as it crosses the year-2000 threshold, say industry analysts. Not unlike the subjects in those "before" and "after" shots in weight-loss program advertisements, however, the industry can't help but to look back on those dismal years and take stock of its progress.

"The 1990s were miserable for the integrated (containerboard) producers," said Matt Berler, managing director in Morgan Stanley's Equity Research Department. Berler, an industry analyst who covers North American paper and forest products stocks, spoke to members of the Association of Independent Corrugated Converters at the organization's Corrugated Week conference in November.

"(The integrations) failed to generate adequate returns on capital and, as a result, their stock prices languished and have severely underperformed on the broader stock market," said Berler.

But things will undoubtedly get better, said Berler, with the reduction of 2.5 million tons of capacity, or about 6% of the industry's total capacity, over the course of 1999.

The reductions came primarily as a result of the historic merger between Jefferson Smurfit Corp. and Stone Container Corp., which transpired in late 1998, as well as that of International Paper and Union Camp in 1999. Almost immediately upon its christening as Smurfit-Stone Container Corp., the company took 1.6 million tons of capacity out of the market. International Paper and Union Camp soon followed with the reduction of approximately 600,000 tons of capacity, while Westvaco and Temple-Inland took out several tons as well.

"It seems pretty clear to me that (these closures) have lifted operating rates back up to levels where the producers regained price empowerment," said Berler. "There's limited new capacity in the United States and worldwide, so if demand can sustain moderate growth, I think producers will maintain their ability to raise prices for the next several years." Berler said there is limited new capacity because producers have realized they cannot make gains in today's market by building more machines.

"Producers have decided they do a poor job of building new machines and earning an adequate return," he said. "So they're better off focusing on cost-reduction opportunities as a way to boost profitability."

Mark Wilde, an industry analyst with BTAlex.Brown Inc., agreed that the recent reductions in capacity in the containerboard industry have "been a huge shot in the arm for the business." He suggested that similar steps should be taken in the folding carton sector.

"I think the question for the carton (segment) is, Does the carton industry need a similar type of transaction? I think there is oversupply in the cartonboard business," he said. In fact, the oversupply problems in the folding carton sector could get worse before they get better because two new gypsum machines are due to start up in the next year or two—one with the Republic Group and one with the Carastar/Temple-Inland joint venture, he said.

Wilde noted that, while there has been a great deal of merger and acquisition activity among folding carton companies over the last five years, none have been of the same magnitude as the Smurfit-Stone deal. Does the folding carton industry need a merger of comparable size?

"I think that's what Smurfit-Stone and other people are pointing to," Wilde said.

In the meantime, "I would like to see more consolidation and rationalization in the folding carton industry," he said, noting the industry is still heavily fragmented with a lot of small, privately held companies. "Because all of these companies have relatively small market capitalizations, they're hard for big investors, such as institutions, mutual and pension funds, to buy. As a result, the value of these smaller companies remains depressed."

But even if analysts got their wish and more mergers and acquisitions took place in the folding carton industry, the smaller, independent players would still have an important role, said Wilde.

"In the end, the guys who are going to survive among the independents are the ones who stay to the niches and remain very customer-focused," he said. "The independents do a better job of serving customers. The integrations typically have not done a very good job on that count." —Christine Lyall



The continued expansion of the U.S. economy in 1999 resulted in an increased demand for a variety of shipping containers, cartons and boxes. In 1999, sanitary food and beverage containers represented 30% of the total quantity imported, and finished folding cartons represented 70%. In recent years, the import share of sanitary food and beverage containers has risen substantially due to moderate growth in U.S. demand by the domestic soda and beer end-use markets.

In 1999, U.S. imports of sanitary food and beverage containers were 43,000 metric tons. This reflects a 2% increase in quantity shipped. Canada is by far the leading supplier to the U.S. market, with a 91% market share. The only other noteworthy suppliers in 1999 were Denmark (4%) and Venezuela (2%).

In 1999, U.S. imports of finished folding cartons were 117,110 metric tons. The level of imports in 1999 increased by 2%. As is the case with most paper and paperboard products, Canada is by far the principal supplier of folding cartons to the U.S. market. In 1999, Canada supplied 87% of the finished folding cartons imported into the United States. Other carton suppliers included China (5%), Taiwan (2%) and the Netherlands (1%).

## PROSPECTS FOR 2000 & BEYOND

Product shipments by the U.S. folding carton industry should increase 1.2% (in real terms) in 2000, buoyed by the continued expansion of the U.S. economy, which should translate into higher consumer spending, increased real disposable income and consumer purchases of nondurable food products (i.e., fast food items and dry foods).

Product shipments of folding cartons should increase about 1.6% annually over the next five years as the U.S. economy grows at around 2.2% per year. Exports and imports of folding carton products should increase about 6% and 7% per year, respectively (on a quantity basis), throughout the five-year period. Mexico and Canada will remain the principal export markets, but the industry will develop a number of new, non-traditional markets over the next year, located primarily in Latin America, East Asia and Eastern Europe.

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for the faint of heart. But with 1999 drawing to a close, the general outlook for Canadian producers is arguably the best end-of-year scenario that the industry has experienced since the mid-1990s. This is not to say that the carefree, capacity-binging days of the early 1990s are here again, but it's the closest the industry has come in terms of achieving some sort of maintainable supply-demand equilibrium and keeping production and sales figures at reasonably profitable levels.

"This (1999) has been a year of some real improvement," said Patricia Mohr, a veteran Canadian forest products analyst and vice-president of economics at Scotiabank in Toronto. "Things are much more positive in the paperboard products industry in general than at the beginning of the year.

"With the North American economy really picking up steam now, and with the various mill shutdowns this year now paying off on the supply side, I think you're looking at a pretty good year 2000 for the industry," she continued. "While the export situation is somewhat mixed, we have noticed a [late-year] pick-up in the Asian markets."

According to Mohr, Canadian producers are now fetching the selling prices of US\$410 per short ton unbleached linerboard in the all-important Eastern U.S. markets—up from about US\$300 at the beginning of 1999—and about US\$390 per short ton for 26-lb. semi-chemical corrugated medium, an increase from US\$310 in early 1999.

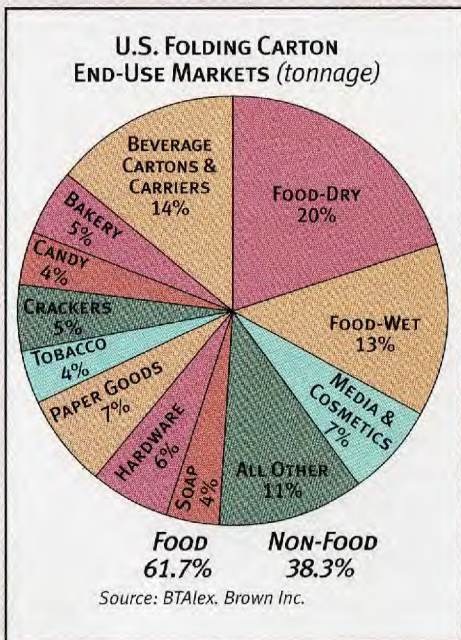
"The health of this industry is closely correlated with the level of industrial

## CANADA:

### TENTATIVE RECOVERY TAKING SHAPE

*by George Guidoni*

With its notorious price volatility, ever-changing demand picture and lingering overcapacity woes, surviving a year in the Canadian pulp and paper industry—particularly in the containerboard and corrugated segments—is rarely a proposition



YEAR	CONTAINERBOARD			FOLDING CARTON		
	LINER	MEDIUM	TOTAL	BOXBOARD	TOTAL	CAPACITY
1994	1,638	899	2,537	944	3,481	95.3%
1995	1,575	920	2,495	949	3,444	94.3%
1996	1,624	1,028	2,652	947	3,599	93.8%
1997	1,628	1,061	2,689	997	3,686	93.2%
1998	1,753	1,079	2,832	1,001	3,833	89.7%

\*Projected figures  
Source: Canadian Pulp and Paper Association

activity," said Mohr. "While we've been lagging behind the U.S. economic recovery for some time, there is definitely a pick-up in consumer spending taking place, particularly in Central Canada."

This is all music to the ears of Steve Purwitsky, executive director at the Toronto-based Canadian Corrugated Case Association (CCCA), whose member-companies account for about 98% of all Canadian corrugated output.

"There is a greater demand for boxes all around, which will help to increase sales," said Purwitsky. "And in the short-term, shipment of corrugated should continue to increase." He noted that total shipments for the first nine months of the year by CCCA member-companies were up 6.9% from the same nine-month period a year before.

## THE HARD FACTS

Other general industry indicators also appear to bear out this trend. According to figures compiled by the Montreal-based Canadian Pulp and Paper Association (CPPA):

- Linerboard shipments for the first nine months of the year stood at 2,281,000 metric tonnes, compared to 2,044,000 metric tonnes for the first three quarters of 1998.
- Shipments of corrugated medium rose to 862,000 metric tonnes during the nine-month period from a year ago.
- Boxboard shipments for the nine months improved year-over-year to 767,000 metric tonnes from 730,000 metric tonnes over the first nine months of 1998.

Coupled with similar pick-up in the shipments of various grades of paper, the entire Canadian paper products industry finally appears to be on a long-awaited—if not completely ascertained—road back to profitability. According to the latest quarterly statistics from the PricewaterhouseCoopers' Global Forest & Paper Practice unit in Vancouver, the big eight integrated forest products companies in Western Canada turned in total profits of \$141

CANADIAN CORRUGATED & FOLDING CARTON CAPACITY ( <i>'000 metric tons</i> )					
YEAR	CONTAINERBOARD			FOLDING CARTON	
	LINER	MEDIUM	TOTAL	BOXBOARD	TOTAL
1994	1,699	950	2,649	1,003	3,652
1995	1,643	972	2,615	1,039	3,654
1996	1,758	1,021	2,779	1,059	3,838
1997	1,859	1,106	2,865	1,088	3,953
1998	1,947	1,203	3,150	1,122	4,272
1999p*	2,007	1,197	3,204	1,149	4,353

*\*Projected figures  
Source: Canadian Pulp and Paper Association*

million in the quarter ended September 30, almost six-fold the \$24-million total net earnings from the same quarter of 1998. The big eight Eastern Canada producers combined for a total quarterly profit of \$156.4 million, up from \$46.1 million from the corresponding quarter of 1998.

This recovery could not come soon enough for Canada's long-embattled forest products industry, which only had profitable years this decade in 1990, 1995 and 1996. Unlike in the United States, the financial state of the forest products industry is of prime importance to Canada, which has a relatively resource-based economy. The recent recession in British Columbia, for example, was primarily the result of a collapse of the Asian markets for the province's forestry exports.

Shipping about 30 million metric tonnes of pulp and paper products a year—with paperboard accounting for about 13% of that total—the industry contributes about \$30 billion annually to the country's balance of payments, while sustaining about one million direct and indirect jobs.

## OVERCAPACITY EXISTS

While things are getting better, containerboard producers are by no means out of the woods, some industry insiders contend.

Marc Andre Depin, vice-president and COO of the corrugated division of Montreal-based Norampac Inc., warned against undue reliance on fur-

ther price increases, pointing out that the North American industry is still awash in overcapacity.

"Even if St. Laurent and Norampac decided to get together and jointly raise their prices in Canada, there is enough excess [capacity] in the United States that could flow back into Canada and shut our mills down—and that's true in reverse," he said. "On the supply side, new capacity is what killed us in 1993 and 1994."

Norampac, the biggest player in the Canadian containerboard industry that was formed in a late-1997 merger of packaging operations of forestry giants Domtar and Cascades, registered a loss of \$5.1 million in 1998, despite healthy shipments and revenues of \$889.2 million. Depin says that the better-managed producers in industry could be profitable with a benchmark price of about US\$400 per short ton of kraft linerboard.

"If you have good equipment and manageable debt levels, you should be able to make a profit," said Depin. "I don't think we need to get US\$450 for kraft linerboard to do it. We just need to keep it from moving to US\$250."

## LONG-TERM OUTLOOK

Ultimately, of course, the long-term prospects for the paperboard and corrugated industry will be defined by how well producers respond to the market challenges from other materials used in the packaging of consumer and other products in North America—notably, plastic.

"In the last few years, there has been a major drive by the plastics industry to drive up the use of plastic containers in packaging, for a number of alleged benefits," said CCCA's Purwitsky. "We (CCCA) find many of these claims to be unfounded...especially when you consider that corrugated containers are made from a 100% reusable resource, are a lot cheaper means of packaging and allow the customer to print directly onto the substrate."

In terms of public relations, boxmakers claim to hold a solid edge from an environmental perspective. According to the Toronto-based Paper & Paperboard Packaging Environmental Council (PPEC), the average recycled content of paper-based packaging shipped domestically now stands at 65%, compared to 45% just 10 years ago. An average boxboard carton shipped domestically today has 93% recycled content. Linerboard averages 53% and corrugated medium 69%, PPEC maintains.

Purwitsky said that, coupled with the recent advances in small-flute corrugated technology as well as improved capabilities of modern packaging and package printing machinery, paper-based packaging will definitely continue to play an important role as a "reliable and very reasonably priced" packaging medium of choice.

"(Small-flute corrugated) has definitely become the big thing over the last year or so," Purwitsky noted. "There are now all sorts of E-fluting capabilities that allow you to print directly onto boxes easier than ever before and at a more reasonable price."

"The whole story of corrugated is its

strength—the strength provided by the arches that belie their impression of being flimsy little boxes," he said.

—George Guidoni is editor of Canadian Packaging magazine.

## MEXICO:

### POISED FOR GROWTH

by Christine Lyall

Mexico's economy has had its share of hard knocks over the years. The peso hit rock bottom in 1994; the Asian economy collapsed in 1997 with worldwide ramifications; and oil prices continued to decline in 1997 and 1998. Although the country's GDP grew by 7% in 1997, it dipped to 4.8% by 1998, according to the August 1999 issue of *Pulp & Paper International*. Inflation then rose to 18.6% in 1998, up from 15.7% in 1997.

Nonetheless, the economic situation in Mexico is well on the rebound as it enters the year 2000. And capacity for paper production is on the rise, as the executives at at least two major converting facilities attest.

Cartones Ponderosa S.A. de C.V. is a 100%-recycled coated boxboard plant located in San Juan de Rio, Queretaro, Mexico. The company is affiliated with Aluprint S.A. de C.V., a manufacturer of folding cartons, small-flute corrugated and flexible packaging.

"Our mill shipped more than 173,000 metric tons in 1998, and we plan to ship more than 190,000 metric tons in 1999," reported Angel Perez, director of operations at Cartones Ponderosa. "That increase was due to domestic market expansion and increased exports, sup-

ported by a major capacity increase that took place in 1997." He said more capacity growth is projected for 2000.

Perez also reported that the company's mill exported close to 33,000 metric tons in 1998, and it expects to export about 35,000

metric tons in 1999.

The North American Free Trade Agreement (NAFTA) between Mexico, the United States and Canada has created significant export and import opportunities for all countries involved. A major influence on domestic market expansion expressly for Mexico, however, has been its maquiladora program, particularly with the United States. Through this program, multinational companies send parts to Mexico for assembly, putting thousands of Mexican laborers to work and creating more disposable income.

"The maquiladora region, which is part of the northern border of Mexico, is considered one of the most important markets for corrugated boxes, today and in the future," said Arturo Diaz, spokesman for Grupo Industrial Durango. The corrugated converter is 70%-owned by Corporación Durango, one of the largest paper producers in all of Mexico and Latin America.

"The maquiladora region grows at an average of 15% per annum and sales to this region may have a positive impact in the coming years," said Diaz.

*Latin Trade* magazine reported recently that, while the maquiladoras have traditionally been located along the 2,000-mile U.S. border since their inception in the mid-1980s, they have since expanded into other reaches of the country—spreading their wealth, so to speak. They are also no longer limited to assembly line work, as multinational companies have started to entrust the manufacturing of their goods to the facilities as well. This can only mean good news for Mexican boxmakers.

"The Mexican economy has recovered since 1995," Diaz said. "This recovery has positively affected our sales volume. In the year 2000, the economy is expected to grow 3% to 3.5%, and this would be reflected in sales volume, having similar growth."

"We are positive that Mexico will not face another economic crisis and that the economy should register a sustainable growth during the next five years," he concluded.

**MEXICO'S CORRUGATED MARKET**  
(*'000 tons*)

YEAR	PRODUCTION	APPARENT CONSUMPTION	IMPORTS	EXPORTS
1997	1,392	1,604	232	20
1998	1,483	1,776	307	14

Source: *Pulp & Paper International Fact and Price Book, 2000*