

PAPERBOARD, IMPORTS, AND EXPORTS TO FUEL 1997 GROWTH

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FOLLOWING DISAPPOINTING SALES, EARNINGS, AND EXPORT PERFORMANCES IN 1996, U.S. PAPER AND ALLIED PRODUCTS MANUFACTURERS SHOULD EXPERIENCE INCREASED FOREIGN AND DOMESTIC DEMAND IN 1997, MOST OF THE GROWTH ESPECIALLY IN THE PAPERBOARD SECTORS.

The U.S. paper and allied products industry (SIC 26) is the world's leading producer and benefits from a large domestic consumer base; a low-cost, high-quality and volume manufacturing infrastructure; adequate raw material and energy resources; a highly skilled labor force; and an efficient transportation and distribution network. The industry ranks among the top 10 among U.S. manufacturing industries and in the top five among sales of nondurables sectors. Although the industry is the third leading energy consumer (behind the chemicals and metals sectors), it has the second highest rate of self-generated energy (behind only the chemicals industry), totaling 56% in 1995-96.

The domestic industry consists of 17 separate manufacturing sectors that process wood, recovered paper and paperboard, other cellulose fiber sources, and plastic film into thousands of end-use products. However, certain types of specialty converted paper products such as abrasive, carbon, facsimile, and photosensitive and photographic papers are not covered. According to the Census Bureau Standard Industrial Classification (SIC) nomenclature, the industry is divided into three product segments:

1. SICs 261, 262, and 263 are the primary products sectors, covering the production of pulp, paper and paperboard
2. SIC 265, which consists of five different paperboard containers and boxes sectors
3. SIC 267, which contains nine separate nonpackaging converted paper and paperboard products sectors including pressure-sensitive tapes, labels, and packaging films; plastic and paper bags; envelopes; stationery and paper office products; pressed and molded pulp goods; various wall coverings; and gift wrap paper.

In 1996, the capital-intensive primary products sectors obtained wood fibers from company-owned and managed timberlands or from purchased virgin or secondary fiber sources. They produced commodity grades of market wood pulp, newsprint, printing and writing paper, wrapping and packaging papers, sanitary tissue, industrial-type papers, containerboard and boxboard. According to a recent industry survey, this sector operated 190 pulp mills and 537 paper and paperboard mills in 1996—both figures represent the world's largest primary production base. On a global scale, the U.S. pulp and paper manufacturing sector annually produces 62.1 million metric tons of pulp (representing 31.5% of world production) and 87.8 million metric tons of paper and paperboard (representing 29% of world production).

The more labor-intensive packaging and converting sectors (accounting for 68% of the industry's employees) consist of 14 value-added finished products industries that consume intermediate products (e.g., paper, paperboard, plastic, and certain metal films) in the manufacture of a wide variety of commodities. These commodities include off-machine coated papers; paper and plastic grocery sacks and bags; corrugated and solid fiber boxes; folding cartons; fiber cans; tubes and drums; sanitary diapers, tissues, toweling, and related sanitary paper products; paper office supplies; stationery; envelopes; plastic film and laminated paper, plastic, and metal foil products; pressure-sensitive and gummed tapes and labels; wall coverings; molded pulp products; and gift wrap. Many companies in this diverse product sector are either (or perhaps both) vertically or horizontally integrated with raw material suppliers, regional product distributors and wholesalers, and, in some instances, retailers. This is especially true in the production of sanitary tissue products; corrugated shipping containers; folding cartons; flexible packaging materials; and stationery, envelopes,

and other paper office supplies.

1996 INDUSTRY PERFORMANCE

Following a record sales performance in 1995, the U.S. paper and allied products industries experienced a year of lower domestic and foreign demand, declining prices, and inventory drawdowns. As a result, total shipments of paper and allied products fell 2.2% (in real terms) in 1996. The drop in prices resulted in a 4.5% drop in the current value of shipments last year. Although the industry typically follows the growth of the domestic economy, 1996 saw a distinct step away from this traditional relationship. Overall, GDP increased about 2.2%, but the industry was unable to keep pace. A number of price increases in the pulp, paper, and paperboard sectors was attempted but with only minimal success in some commodity grades.

The primary pulp, paper, and paperboard manufacturing sector accounted for 41% (or US\$ 64.7 billion) of the value of the industry's total shipments, down from the 44% level of 1995. Through the first nine months, shipments of paper and paperboard fell more than 2.6% and market pulp shipments fell about 6.3%. Although the sector recorded real growth in a few isolated paperboard sectors, including recycled containerboard and unbleached kraft folding boxboard, tonnage shipments were down for most of the industry's principal pulp, paper, and paperboard grades, in both domestic and foreign markets. In 1996, the value of product shipments for the paper and paperboard packaging sectors was estimated at US\$ 44.2 billion and represented 28% of the industry's total shipment value. The value was up from the 26% level the industry held in 1995. Although these sectors also experienced lower domestic and foreign demand, they benefited from the steep decline in the prices of raw materials. The value of shipments in the converted paper and paperboard products sectors were estimated at US\$ 48.8 billion in 1996 and accounted for 30% of the industry's shipments (down slightly from the 31% level of 1995).

Most of the paper and paperboard converting sector is in the more populous metropolitan areas—especially in the Northeast, Southeast, and Great Lakes regions and California—where end-user markets are readily accessible and high transportation costs can be minimized. In distinct contrast, the primary pulp and paper manufacturing sector has its major production facilities closer to the nation's extensive wood fiber resources, with large plant concentrations in the Southeast, North Central, and Pacific Northwest regions. The most favorable timber-growing conditions are in the Southeast, which has approximately 72% of the U.S. pulping capacity and 55% of the primary paper and paperboard producing capac-

ity. The reduction in the annual timber cut allowed by the U.S. Forest Service and the Bureau of Land Management on federal forest lands over the past five years has resulted in a tight fiber supply in the U.S. Pacific Northwest. Although a number of pulp and paper companies in the region can rely on privately owned or Canadian owned timberlands for fiber, other companies have been forced to curtail production due to a lack of available pulpwood.

Operating rates

Operating rates averaged about 88-89% for the primary paper and board sectors in 1996. This represents a noticeable reduction from the 93-94% level of 1995. Lower domestic and foreign demand, new capacity coming on-line in certain commodity sectors, high producer and consumer inventories, and falling prices led to the lowest operating rates in more than a decade. New paper and paperboard tonnage capacity in 1996 was estimated at 2.9% above the previous year. Because much of this tonnage was due to come on-line when price and demand levels were at their lowest point in five years, a number of the projects were delayed in their startup. By controlling operating rates and allowing inventories to draw down for most of the year, domestic pulp and paper producers were moving into a relatively strong economic and operative position in the last half of 1996. This should bode well for the industry in 1997. Industry capital expenditures fell by 3% last year, to US\$ 7 billion, representing the lowest level over the past decade. Over the past five years, there has been a general downturn in industry spending following the record high levels of the late 1980s and early 1990s. Expenditures for environmental control projects accounted for 14-15% of total capital outlays in 1996.

Earnings

Declining demand, lower prices, and a major inventory drawdown led to a dramatic decrease in the industry's earnings in 1996. Virtually every major U.S. pulp and paper company saw overall sales, net profits, and average earnings per share decline sharply from the same period a year ago. In aggregate, the industry saw income drop over 12%, earnings per share drop by more than 15%, and net profit decline by 29%. At the same time, industry costs for labor, chemicals, and wood raw materials were generally kept in check as prices for market pulp, recovered paper and paperboard, and various packaging mediums remained fairly depressed.

Total employment

Total employment in the industry was about 619,000 in 1996. The level of employment has fluctuated over the past five years as the industry has been through several business, supply/demand, and price cycles during the period. Average hourly earnings for the industry

increased about 3.1% in 1996. The level of production workers for the industry has remained essentially unchanged over the past five years. Most of the turnover for the industry has been in administrative and sales personnel. Despite increased domestic pulp and paper capacity over the past five years, there have been no notable increases in the number of production workers. The ongoing influx of new solid-state computer controlled equipment, operating systems, and inventory-monitoring processes have permitted the industry to increase overall productivity without increasing operating costs. Over the 1993-96 period, the pulp and paper industry has experienced strong gains in labor productivity, as growth averaged more than 5% compared with less than 3.5% for overall U.S. manufacturing labor productivity. Continued capital expenditures, technical and process improvements, and the industry's downsizing and restructuring have contributed to these improved labor-productivity efficiencies.

INTERNATIONAL COMPETITIVENESS

The United States has traditionally traded a variety of pulp, paper, paperboard, and allied products with more than 125 countries. The large modern manufacturing base, when combined with the available handling and transportation systems and skilled labor force, places the U.S. industry as the most competitive and highest volume and quality producer in the world. Although the industry still gears as much as 90% of its output to the large U.S. consumer market, it has become a major player in the world pulp and paper market. As domestic sales have only experienced slight growth (1.5-2.0%) over the past five years, the industry has placed more emphasis on expanding its overseas sales opportunities. Over the past five years, U.S. paper and allied product exports have increased at nearly an 8.2% compound annual growth rate. Most of the increase has come from higher exports to Canada, Mexico, Southeast Asia, Latin America, and certain EU countries.

Exports

In 1996, U.S. exports of paper and allied products were valued at US\$ 13.9 billion, representing an 8% decline over the 1995 record value of US\$ 15.1 billion. The commodities exported by the U.S. industry are divided into pulp, recovered paper, primary paper and paperboard, and converted paper and paperboard products. Exports of paper and paperboard were valued at US\$ 6.4 billion and represented just over 46% of the industry's total exports. The second-leading category was exports of converted paper and paperboard products, which were valued at US\$ 3.3 billion and represented 24% of the industry's exports. Market wood pulp was the third leading export in 1996, valued at US\$ 3.2 billion and representing about 23% of the industry's exports. Although

not included formally in the SIC nomenclature, exports of recovered paper, seen as a by-product and marketable commodity by the industry, are included in the industry export figures. In 1996, exports of recovered paper were valued at US\$ 804 million and represented about 5.8% of the industry's exports. The remaining balance of U.S. exports, valued at US\$ 111 million, comprised wet machine board, construction paper and paperboard, cotton linter pulp, and nonwood pulp.

Mexico and NAFTA

The Mexican economy has experienced difficulties (e.g., high inflation, currency devaluation) over the past several years as the country moves toward a more business-oriented focus. As a result, the benefits of the North American Free Trade Agreement (NAFTA) to the U.S. paper industry have not been realized to date. In the first couple of years of implementation, the industry enjoyed significantly higher exports to Mexico, reaching US\$ 1.9 billion in 1995. However, the peso devaluation has had a negative impact on the U.S. industry's ability to compete in the Mexican market; this was clearly evident in 1996 as U.S. exports to Mexico dropped by nearly 10% to US\$ 1.7 billion. Nevertheless, there are hopes that the NAFTA will reap positive benefits on the U.S. paper industry in the future as the economy strengthens and market access barriers (both tariff and nontariff) are reduced. Beginning Jan. 1, 1994, NAFTA proposed to phase out trade barriers on the majority of primary pulp, paper, and paperboard products over a five-year period. Corrugated box tariff and nontariff barriers will be eliminated over seven years, while tariffs on most converted products will be eliminated after a 10-year phaseout.

Impact of GATT

The ongoing implementation of the General Agreement on Tariffs and Trade (GATT), which began in 1995 by the World Trade Organization (WTO), should also have a positive impact on the future trade opportunities for the U.S. paper and allied products industries. According to the market access agreement being implemented by the WTO, foreign market access barriers in some 130 countries will be eliminated by the year 2005. The implementing legislation of the GATT agreement (as well as the NAFTA) has specific language permitting the U.S. government (USG) to enter into follow-up negotiations that could possibly lead to shortening, or perhaps eliminating, the tariff reduction period. The U.S. industry has been very proactive in supporting the USG's efforts to this end.

U.S.—Japan agreement

In 1996, the U.S. and Japanese governments met several times to assess the ongoing implementation of the April 1992 U.S.—Japan Paper Agreement. The objective of the agreement is to open Japan's US\$ 70-billion paper and paperboard market, which is second only to the United States. The agreement requires the Japanese government

to encourage Japanese distributors, converters, printers, and major corporate users to increase substantially competitive foreign paper products, develop long-term buyer/foreign supplier relationships, develop company-specific nondiscriminatory purchasing guidelines, and establish and implement Anti-Monopoly Act compliance programs.

The bilateral implementation talks in 1996 were held for the second consecutive year under the umbrella of the U.S. trade representative placing the government of Japan on a Super 301 "Watch List," which allows the USG to monitor trade activities of a foreign country's markets in order to determine whether discriminatory treatment was being placed against U.S. and other foreign suppliers. After a year, the USG would retain the option of either initiating a full investigation (under Super 301) or seek to impose some form of trade sanctions to ensure compliance. After two years of being on the Watch List and after four years of implementing the agreement, little has changed in terms of Japan's apparent consumption of foreign paper products. Since the agreement was signed, total Japanese paper imports have increased by only 0.5%, from 3.6% to a 4.1% market share. The industry estimates that if all barriers were eliminated, Japanese imports of foreign competitive paper products would increase four-fold to nearly US\$ 4 billion.

Imports

Over the past five years, U.S. imports of paper and allied products have increased notably due to the large domestic market and the world's highest per-capita consumption (730 lb/332 kg). This combination makes the U.S. market a primary target for many countries' paper-related output. Over the past five years, imports have experienced nearly a 10% compound annual growth rate, primarily from Canada, Scandinavia, and certain EU and Latin American countries. In 1996, however, U.S. imports actually declined for the first time since 1992 by about 8% to US\$15.8 billion. Similar to the U.S. exports, the commodities imported by the U.S. industry are divided into pulp, recovered paper, primary paper and paperboard, and converted paper and paperboard products. Imports of paper and paperboard were valued at US\$ 10.3 billion in 1996 and represented about 65% of the industry's total imports. This was followed by wood pulp at US\$ 2.8 billion (or 18%), converted paper and paperboard products at US\$ 2.5 billion (or 16%), and recovered paper and paperboard and all other products valued at US\$ 159.4 million (or 1%).

ENVIRONMENTAL PROFILE

The U.S. paper and allied products industries have traditionally been at the forefront of a number of environmental issues. They have a history of successfully addressing many key environmental issues, particularly as they relate to air and water quality, recycling, recovery

of pre- and post-consumer paper and paperboard, and reduction of solid waste. The industry has significantly improved its environmental protection efforts over the past several years and has worked closely with the USG on a number of key domestic and international environmental policy issues.

The United States is the global leader in the generation, recovery, consumption, and export of recovered paper and paperboard. What was once a fiber supplement has become a critical source of paper-making raw material. In 1996, the U.S. paper and paperboard industry consumed 28.9 million metric tons of recovered paper and paperboard. Although this reflected more than a 2.5% drop from the 1995 record level, it was still the second-highest amount ever consumed by the domestic industry. Despite the decline, in terms of the amount of raw material consumption by the industry, the share of recovered paper and board actually increased to an all-time high of 33.6% (up from the 1995 share of 33.2%). In addition, the industry exported an additional 7.9 million metric tons to about 75 world markets.

Cluster rules

A key environmental issue that the industry has been following over the past several years is the pending completion and implementation of the Environmental Protection Agency's (EPA) Cluster Rules. The industry has been quite active and vocal over the past several years in assessing and evaluating the scope and potential effects of the Rules, which will revise water effluent and air emission standards for the paper and allied products industries. The guidelines, which were published in the Dec. 17, 1993, Federal Register, were designed to reduce the amount of toxic water pollutants and hazardous air emissions by the primary pulp, paper, and paperboard industry. The idea was not only to reduce the amount of discharge at "the end of the pipe" by add-on equipment and controls, but also to reduce the likelihood of the pollutants' formation during the actual manufacturing process.

Over the past couple years, the EPA has worked with the industry through "the stakeholders process" whereby the EPA has worked hand-in-hand with the industry to develop new testing and process treatment methods; introduce scientific data and research; and offer advice on the environmental, economic, and industrial impact of particular findings, results, and implementation timetables and targets. Through the stakeholders process, EPA has shown flexibility in reviewing the standards (e.g., COD, BOD, color, AOX) and procedures (e.g., BAT, MACT processes).

In July 1996, the EPA published a Federal Register Notice that contained only the water portion of the proposed Cluster Rules. The "Notice of Data Availability" included new data and testing results showing the amount of dioxins and furans in pulp and paper mill

wastewater effluent that can be reduced using two different technologies. One of the technologies uses the process of oxygen delignification (OD); the other process does not. The EPA chose to use the "either/or" scenario, which gave approval to two process and technology options as opposed to the industry-supported plan which would have dropped the OD option. As drafted, the notice states that 100% substitution of chlorine dioxide for elemental chlorine gas is as effective as 100% substitution with OD in reducing wastewater effluent pollutants at bleached paper-grade sulfate and soda pulp mills. The agency indicates that both technologies merit careful consideration for effluent limitations based on the Best Available Technology (BAT) which is economically achievable, and pretreatment standards for existing sources. Currently, the EPA indicates that dioxins and furans in pulp mill effluent and wastewater discharges from bleached sulfate and soda mills can be effectively cut by 95% and 99%, respectively, from the base year levels from 1992 using either technology. Currently, the EPA is targeting March 1997 as the date for final promulgation of phase 1, but this could easily slip depending upon internal EPA work and industry input. Phase 1 only applies to bleached paper-grade sulfate and soda mills.

PROSPECTS FOR 1997

At press time, the Clinton Administration is forecasting a 2.3% growth in real GDP for 1997. As a result, the U.S. paper and allied products industries should see increased demand and higher sales for next year. Product shipments by the industry should increase about 2% in 1997 based on expanding sales opportunities in the domestic market and improved access to foreign markets. Although the domestic market will consume more than 80% of the industry's output, most of the growth will be in the export arena as foreign shipments increase 5.5% (value basis). Sales prospects in Asia and Latin America will again provide the best opportunities to increase exports next year.

The industry's current inventory drawdown cycle should end by no later than the second quarter. Consequently, operating rates and price levels will begin to rebound by midyear. Over the past 18 months, the industry has progressively lowered production levels and adjusted operating rates to come more in-line with current demand. As the inventory drawdown ends, the industry is well prepared to operate at more appropriate operating levels.

Unless there are unanticipated problems for EPA, the agency will likely promulgate at least the water portions of the Cluster Rules in 1997. Regulations on air and solid waste, which will also certainly affect the U.S. paper and allied products industries, will likely not be worked on until late 1997 or early 1998. The industry will continue

to work closely with EPA through the stakeholder's process on all three potential rules. Although the stakeholder's process has had some glitches, with the industry itself coming in with conflicting advice, it has allowed the industry greater access in working with EPA as it moves forward with this critical rule-making process.

LONG-TERM PROSPECTS

Paper and allied products shipments are forecast to grow at an average annual rate of about 2.1% over the 1997-2002 period. Significant technological, structural, and organization changes should keep the U.S. industry highly competitive in both domestic and international markets. The continued implementation of major regional and multilateral trade pacts will take place over the forecast period and should result in increased export opportunities for the industry over the next five years. The large number of small- and medium-sized paper and allied products companies that have never penetrated the global marketplace will find conditions more acceptable. Therefore, they will be encouraged to focus on export opportunities and take advantage of the more open and competitive global trading system.

The combination of available, relatively low-cost fiber resources, energy, and water supplies, and improvements in product technology and operating conditions, will keep the U.S. paper and allied products industries at the forefront among world pulp, paper, and paperboard producers, converters, and exporters. However, competition for sales in the United States and abroad will intensify, as foreign pulp and paper producers in the Latin American, Asian, and Eastern European developing nations will improve their product quality and more aggressively compete in major paper consuming markets in North America, Asia, and Europe.

Although the rate of growth in the value of paper products imports is expected to rise over the next five years, particularly as the domestic economy and concurrent paper demand strengthens, exports of paper and allied products are projected to climb at an even faster rate. Consequently, the industry's trade deficit should again become a trade surplus. As major trade agreements will be almost fully implemented by the end of the forecast period, the U.S. industry, due to its large production base, will be in an excellent position to dramatically increase its foreign sales opportunities.

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