Paper versus Plastic in Packaging

US Industry Study with Forecasts for 2012 & 2017

Study #2443 | January 2009 | $4700 | 363 pages
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Plastic packaging to continue gains on paper

In selected packaging markets where paper and plastic compete, plastic will continue to increase its overall volume share as it makes further inroads into paper applications. Plastic’s share of the market will expand more slowly than in the past decade, as a number of packaging applications are now fairly mature in terms of the share controlled by plastic. Nonetheless, material enhancements which enable extended shelf life and increased durability, along with reduced material requirements and the addition of convenience features such as resealability and steam cooking, will fuel continued opportunities for plastic packaging.

Plastics’ cost/performance advantages to spur growth

Advances for plastic will be the result of its competitive cost and performance advantages, including light weight, moisture resistance, enhanced barrier properties and puncture resistance. Plastic has continued to expand its share in a number of markets despite the sharp spike in resin prices in recent years. More moderate resin pricing through 2012 should make plastic even more competitive. In the milk and juice markets, plastic will continue to capture a greater percentage of gallonage. Furthermore, plastic will log more rapid growth in smaller sized milk bottles, driven by conversions from gabletop cartons in schools and quick service restaurants.

Though paper packaging will post limited advances or continue to decline in most markets through 2012, paper will log relatively favorable gains in a handful of markets and maintain a substantial lead over plastic. These markets include foodservice, protective packaging, frozen food, and soy and other nondairy beverages. For instance, paper packaging demand in foodservice applications will be supported by ongoing industry revenue growth and paper’s prevalence in key applications like pizza, doughnuts, sandwiches, french fries, and Mexican and Asian foods, as well as the continued popularity of takeout food from quick service restaurants. Bans on foam containers in some areas will also boost opportunities for paper containers.

Both rigid, flexible types to grow at same pace

Aggregate rigid and flexible packaging demand will expand at the same pace, with rigid packaging prospects aided by above-average growth for tubs and cups, trays and other plastic containers such as clamshells and two-piece high visibility plastic containers. Flexible packaging advances will be aided by above-average prospects for pouches, bags and wraps, and protective packaging in light of greater cost effectiveness, space savings, lighter weight and overall source reduction capabilities. In competitive shipping and retail products, the fastest percentage increases for plastic are anticipated in shipping sacks and drums.
**COMPETITIVE PRODUCT PACKAGING**

**Foodservice**

The foodservice segment is one of only a few areas where paper packaging will register above-average gains despite the ongoing loss of share to plastic. Demand for paper foodservice packaging is projected to increase 2.5 percent per annum to 3.8 billion pounds in 2012. Plastic packaging of foodservice items will continue to grow faster than paper, though paper flexible packaging demand will log above-average advances. Foodservice packaging encompasses a variety of disposable paper, paperboard and plastic containers, as well as pizza boxes, folding cartons, carryout containers, wraps, bags and other items such as packaging trays and sleeves.

Growth in the foodservice industry will be driven by the proportion of food expenditures on food prepared away from home as consumers are increasingly willing to pay for convenient, ready-to-eat offerings that provide alternatives to what is typically made at home. The fast-paced lifestyles of many consumers have resulted in reduced time available for meal preparation, which will continue to increase the percentage of meals eaten or prepared away from home. Additional trends that will fuel foodservice revenue growth include above-average expansion in the 55-year-old and above age groups and increased numbers of households where all adults work. Favorable growth in the more mature population segments will boost revenue prospects for eating and drinking places as these individuals are more affluent than younger consumers and are willing to pay for the convenience of restaurant food. Rising levels of households where all adults work will favorably impact foodservice revenue growth as time is at a premium for these consumers. While consumer spending is expected to decelerate from the pace of the past decade, increases will remain favorable, with limited service and casual dining establishments expected to benefit the most from more moderate spending patterns. Moreover, prospects for eating and drinking

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**TABLE IV-6**

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**CHART III-3**

**COMPETITIVE PAPER & PLASTIC PACKAGING DEMAND BY MATERIAL, 1997-2017 (billion pounds)**

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<th>Year</th>
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<tr>
<td>2012</td>
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<td>10</td>
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<tr>
<td>2017</td>
<td>8</td>
<td>10</td>
</tr>
</tbody>
</table>
Advance Polybag Incorporated
1470 First Colony Boulevard
Sugar Land, TX  77479
713-580-4800
http://www.apicorp.com

Annual Sales:  $250 million (estimated)
Employment:  900 (estimated)
Key Products:  plastic retail bags

Advance Polybag Incorporated (API) is a manufacturer of plastic retail bags for supermarkets, quick-service restaurants, convenience stores and other retailers. The Company also provides bag printing services. Other operations include sales offices in Oklahoma City, Oklahoma and Kenner, Louisiana. Other operations include sales offices in Chicago, Illinois; Columbus, Ohio; Philadelphia, Pennsylvania; Las Vegas, Nevada; and New Orleans, Louisiana.

The Company’s bags are manufactured via two-layer coextrusion technology to provide greater strength than monolayer bags. API’s main products are available under the CO-XXTRA and TOUCH-N-GO brand names. For example, CO-XXTRA t-shirt bags are coextruded from high density polyethylene (HDPE) and low density polyethylene (LDPE), thereby providing the strength of HDPE and the appearance and texture of LDPE. TOUCH-N-GO bags are designed for front-end operations. TOUCH-N-GO bags are designed to self-open when the preceding bag is filled and removed. Other bags made by API include gusseted produce bags, which are engineered for easy, one-handed opening and filling.

"Demand for plastic protective packaging is forecast to climb 3.9 percent yearly to 2.2 billion pounds in 2012. Above-average gains for plastic will result from a number of performance advantages, including light weight and excellent cushioning, coupled with expanding Internet sales and heightened specialized packaging requirements in the electronic, medical and other industries. By 2012, plastic will account for an increased 44 percent of combined paper and plastic protective packaging in volume terms."

--Section V, pg. 215
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