Paper versus Plastic in Packaging

US Industry Study with Forecasts for 2014 & 2019

Study #2698 | November 2010 | $4900 | 380 pages
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Plastic’s share of competitive packaging markets will expand more slowly than in the 2004-2009 period due to the maturity of a number of applications controlled by plastic.

Plastic to gain share over paper in select markets

In selected packaging markets where paper and plastic compete, plastic will increase its overall volume share as it makes further inroads into paper applications. Plastic’s share will expand more slowly than in the 2004-2009 period due to the maturity of a number of applications in terms of the share controlled by plastic. Nonetheless, material enhancements providing extended shelf life and increased durability, along with reduced material requirements and the addition of convenience features such as resealability and microwaveability, will fuel ongoing opportunities for plastic packaging. This study examines 17 selected packaging markets in which paper and plastic compete, except where plastic controls over 90 percent of volume demand.

Competitive plastic packaging to grow 2.3% yearly

Advantages of light weight, moisture resistance, good barrier properties, clarity and puncture resistance will enable plastic to outpace paper packaging through 2014 in nearly all competitive markets. Improvements in resealability, microwaveability and other characteristics will also continue to drive plastic expansion. Demand for plastic in competitive packaging markets is projected to increase 2.3 percent annually through 2014, an acceleration from the 2004-2009 period as manufacturing output improves from a depressed base in 2009. Plastic has continued to expand its share in a number of markets despite the volatility of resin prices in recent years. More moderate resin pricing through 2014 should make plastic even more competitive.

Competitive paper packaging to rise 1.0% yearly

Overall paper demand in competitive markets is expected to increase 1.0 percent annually through 2014, rebounding from the 2004-2009 pace due to an upswing in manufacturing activity and an improved outlook for consumer spending. Nonetheless, paper consumption in most markets will post limited gains or continue to decline through 2014. However, paper demand will expand at an above-average pace in the soy and other nondairy beverage, protective packaging and foodservice markets. Gains in the protective packaging and foodservice markets will be attributable to a recovery in the US economy and improved consumer spending. Paper packaging (e.g., gabletop and aseptic cartons) in soy and other nondairy beverages will expand its share due to a favorable consumption outlook along with the positioning of soymilk and similar beverages as natural products. Paper demand in the foodservice market will also be helped by efforts by foodservice establishments to convey a green image and restrictions on the use of polystyrene foam disposables in some communities.
Plastic shipping drum demand is forecast to rise 3.5 percent per year to almost 18 million units in 2014, consuming 385 million pounds of resin. Gains will also be based on a recovery in the US manufacturing industry, from its weakest period. Opportunities for plastic drums will also be based on continuing material improvements and the advantages plastic drums to ship and store a wide array of materials, with the exception of substances (e.g., solvent-based liquids) that are incompatible with plastic. Further gains will be restricted by competition from RIBCs as well as the entrenched position of steel and fibre drums in certain applications. RIBCs offer a number of advantages over plastic drums, such as cost and space efficiency benefits in packaging large volumes.

Plastic drums offer a number of advantages that have spurred their use in many applications. For example, plastic’s corrosion resistance and barrier properties have made plastic drums particularly amenable to packaging chemicals and food products. In addition, the one-piece construction of tight-head plastic drums has made them suitable for the shipping and storage of hazardous wastes. Plastic drums are also lighter in weight than their steel counterparts, which substantially reduces freight costs. Moreover, plastic drums have greater impact resistance, durability and reusability than fibre alternatives. Other advantages of plastic drums include easy reconditioning and cleaning, and the ability to be stored outside without rusting, which is particularly beneficial when warehouse space is limited. Among the drawbacks of plastic drums is the inability to be stacked as high as steel drums (although multi-layer configurations that offer enhanced barrier properties enable stacking). Plastic drums are also heavier and more expensive than steel drums. While plastic drums meet the newer Department of Transportation (DOT)/UN safety standards, they are not approved for the packaging and handling of many flammable materials.

<table>
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<tr>
<th>Item</th>
<th>1999</th>
<th>2004</th>
<th>2009</th>
<th>2014</th>
<th>2019</th>
</tr>
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<tbody>
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<td>Dairy Product Shipments</td>
<td>64.2</td>
<td>68.2</td>
<td>74.5</td>
<td>80.0</td>
<td>86.0</td>
</tr>
<tr>
<td>lbs pkg/000$ dairy</td>
<td>15.9</td>
<td>17.2</td>
<td>17.4</td>
<td>18.1</td>
<td>18.5</td>
</tr>
<tr>
<td>Dairy Packaging Demand</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plastic:</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Rigid Containers</td>
<td>451</td>
<td>576</td>
<td>687</td>
<td>807</td>
<td>918</td>
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<td>Flexible Packaging</td>
<td>150</td>
<td>173</td>
<td>182</td>
<td>203</td>
<td>220</td>
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<tr>
<td>Pouches</td>
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<td>21</td>
<td>23</td>
<td>27</td>
<td>31</td>
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<tr>
<td>Paper:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rigid Containers</td>
<td>335</td>
<td>338</td>
<td>351</td>
<td>364</td>
<td>378</td>
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<td>62</td>
<td>54</td>
<td>49</td>
<td>45</td>
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<tr>
<td>% plastic</td>
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<td>65.8</td>
<td>68.8</td>
<td>71.5</td>
<td>73.4</td>
</tr>
<tr>
<td>% paper</td>
<td>39.5</td>
<td>34.2</td>
<td>31.2</td>
<td>28.5</td>
<td>26.6</td>
</tr>
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</table>

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Sample Profile, Table & Forecast

TABLE IV-17

FROZEN FOOD MARKET FOR
COMPETITIVE PAPER & PLASTIC PACKAGING
(million pounds)

<table>
<thead>
<tr>
<th>Item</th>
<th>1999</th>
<th>2004</th>
<th>2009</th>
<th>2014</th>
<th>2019</th>
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<tbody>
<tr>
<td>Frozen Food Shipments (bil 2005$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lbs pkg/000$ frozen food</td>
<td>20.2</td>
<td>20.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frozen Food Packaging Demand</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Paper:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rigid Containers</td>
<td>194</td>
<td>190</td>
<td>187</td>
<td>185</td>
<td>184</td>
</tr>
<tr>
<td>Trays</td>
<td>94</td>
<td>95</td>
<td>94</td>
<td>94</td>
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</tr>
<tr>
<td>Flexible Packaging</td>
<td></td>
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<td></td>
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<tr>
<td>Plastic:</td>
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<td></td>
<td></td>
</tr>
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<td>Flexible Packaging</td>
<td>98</td>
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<td>Trays</td>
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<td>62</td>
<td>64</td>
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<td>73</td>
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<tr>
<td>% plastic</td>
<td>22</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
</tr>
</tbody>
</table>

“Demand for paper-based materials in frozen food packaging is forecast to climb 1.0 percent annually to nearly 900 million pounds in 2014. Paperboard trays will post above-average gains as a result of rising demand for susceptor trays with bread- and dough-based items such as pizza, pot pies and hand-held entrees, where more even microwave heating and crisping are needed. Paperboard’s favorable environmental profile will also boost demand for ...”

--Section IV, pg. 165

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Green Packaging
This study analyzes the US market for environmentally friendly and sustainable packaging. It presents historical recycled content and reusable packaging demand data (1999, 2004, 2009) and forecasts for 2014 and 2019 by material (paper, metal, glass, plastic, biodegradable plastic) and market (e.g., food, beverage, consumer products, chemicals, shipping, foodservice). The study also discusses source reduction and recycling activity, industry structure and competitive strategies, and profiles industry competitors.
#2721 ........................ 01/2011 ........................ $5100

Plastic Containers
US plastic container demand will rise 4.3% yearly to 2014, driven by performance advantages over alternative packaging media. Bottles and jars will remain the dominant type, while pails and other containers grow the fastest. PET and HDPE will remain the most common resins while polypropylene leads gains. This study analyzes the 12.5 billion pound US plastic container industry, with forecasts for 2014 and 2019 by type and resin. It also evaluates company market share and profiles industry players.
#2672 ........................ 08/2010 ........................ $4900

Foodservice Packaging: Bulk & Portion Control
US foodservice packaging demand will climb 2.5% annually through 2014. Flexible packaging will outpace rigid based on cost, convenience and performance advantages. Restaurants other than quick service types will post the fastest growth within the dominant eating and drinking places market. This study analyzes the $7 billion US foodservice packaging industry, with forecasts for 2014 and 2019 by product, application and end user. It also evaluates company market share and profiles industry players.
#2642 ........................ 05/2010 ........................ $4800

Corrugated & Paperboard Boxes
US corrugated and paperboard box demand will rise 2.4% yearly through 2014. Gains will be driven in part by higher-value types with better graphics capabilities, including folding cartons and corrugated boxes. Internet-based shopping will also support box demand. Durable goods will be the fastest growing market. This study analyzes the $32.3 billion US corrugated and paperboard box industry, with forecasts for 2014 and 2019 by material, product and market. It also evaluates company market share and profiles industry players.
#2598 ........................ 03/2010 ........................ $4800

Microwave Packaging
US microwave packaging demand will climb 7% annually through 2013, driven in part by demand for more convenient meals coupled with the prevalence of microwave ovens. Frozen foods will remain the top use while fresh prepared foods will lead gains. Foodservice containers and tubs, cups and bowls will be the fastest growing types. This study analyzes the $1.7 billion US microwave packaging industry, with forecasts for 2013 and 2018 by application and product. It also evaluates company market share and profiles industry players.
#2572 ........................ 12/2009 ........................ $4700

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