COMMENTARY

OVERVIEW

U.S. paper and paperboard capacity edged down 0.8% in 2008 to 96.3 million tons, according to the American Forest & Paper Association's *49th Annual Survey of Paper, Paperboard, and Pulp Capacity.* Last year's decline was just slightly below the 1.0% long-term trend rate of contraction recorded from 2001 through 2007. Cumulatively, paper and paperboard capacity has declined 7.3% since its 2000 peak level.

Information compiled for the Survey indicates that 41 machines (18 entire mills) closed permanently in 2008 and 2 machines (1 entire mill) are scheduled to close this year. Also, several machines have been indefinitely idled in response to market conditions, but have not been removed from the survey base because they may be restarted at some future date.

According to the Survey, total paper and paperboard capacity is projected to decline 1.8% in 2009, and then expand by 0.3% in both 2010 and 2011. For the entire three-year projection period (2009-11), paper and paperboard capacity is slated to decline at an average annual rate of 0.4%.

PAPER GRADES

U.S. **newsprint** capacity continued to contract in 2008, extending a string of consecutive declines that began in 2001. Newsprint capacity contracted 8.6% in 2008, bringing it to 4.9 million tons and marking its lowest level since 1980. The capacity reductions were largely associated with machine shifts to uncoated mechanical papers. Newsprint capacity is projected to fall 1.7% this year, 0.7% in 2010, and 1.0% in 2011.

Total **printing-writing paper** capacity (uncoated free sheet, uncoated mechanical, coated free sheet, and coated mechanical) declined 3.9% in 2008 to 24.3 million tons. The declines were sharpest with respect to uncoated free sheet on both a percentage and tonnage basis. Uncoated mechanical was the only grade category to experience an increase in capacity last year.

Printing-writing paper capacity will decline another 5.2% in 2009, according to the Survey. It is then expected to level off, declining a fractional 0.1% in 2010 and rising 0.2% in 2011.

Uncoated mechanical paper capacity has shown steady expansion during recent years, increasing 21.3% from 2000 through 2008. U.S. capacity to produce uncoated mechanical paper rose 4.5% in 2008 to 2.4 million tons, reaching its highest level ever. Uncoated mechanical capacity is slated to rise an additional 4.3% in 2009, 2.0% in 2010, and 2.1% in 2011. These capacity increases largely reflect shifts in capacity to uncoated mechanical from newsprint. Demand for uncoated mechanical paper has increased during recent years as some customers have shifted to more economical grades.

Coated mechanical paper capacity rose 2.3% in 2007 but subsequently declined 2.4% in 2008 to a level of 4.7 million tons. Last year's decline reflected the permanent closure of three machines. The residual impact of last year's machine closings and grade shifts are among the factors contributing to a projected 7.0% contraction in coated mechanical capacity in 2009. The Survey shows coated mechanical capacity holding stable in 2010 and 2011.

Coated free sheet capacity declined by 0.2% in 2007 and 2.1% in 2008 to 5.2 million tons. The 2008 decline reflected the closure of one machine early in the year and the staged closing of an entire mill comprising three machines during the spring and summer months. Coated free sheet capacity is projected to decline an additional 6.4% in 2009 and then hold nearly stable during the 2010-11 period. Coated free sheet capacity declined at an average annual rate of 0.9% between 2000 and 2008.

After declining 1.4% in 2006 and 3.1% in 2007, **uncoated free sheet** capacity contracted an additional 6.6% in 2008 to 12.1 million tons. Last year's sharp decline reflected several developments including the residual impact of machine closings in 2007, the permanent shutdown of eight machines in 2008, and major conversions of uncoated free sheet capacity to other grades both in 2007 and 2008.

Uncoated free sheet capacity is slated to decline an additional 5.8% in 2009. This reflects the residual effect of the closures and conversions during 2008, and an additional machine closure in the first quarter of 2009. Capacity reductions with respect to uncoated free sheet are projected at 0.6% in 2010 and 0.2% in 2011.

After many years of contraction, **unbleached Kraft paper** capacity rose 2.3% in 2007 and 4.7% in 2008. Last year's increase reflected the net effect of shifts from other grades to unbleached Kraft paper and the permanent closure of two small machines – one in late 2007 and the other in early 2008. Unbleached Kraft paper capacity is projected to rise 1.7% in 2009 and then remain stable in 2010 and 2011.

Bleached packaging and industrial converting paper capacity contracted 8.9% in 2008. It is projected to edge down 0.5% this year and then hold stable during the subsequent two years. It should be noted that bleached Kraft paper is made mostly on swing machines that produce other paper and paperboard grades; hence its capacity is subject to swings based on the grade mix for a given year.

After declining by 1.4% in 2007, **tissue paper** capacity expanded 1.3% in 2008 to 8.2 million tons. The increase partly reflects several new machines – five that came on line during the second half of 2007 and another in the fall of 2008 – the combined tonnage of which was only partially offset by six older machines that permanently closed in 2008 and the residual effect of machine closures in 2007.

One new tissue machine is scheduled to come on line this year and two new machines are slated to begin production in 2010. Total tissue paper capacity is projected to rise 0.3% in 2009, 1.1% in 2010, and 0.6% in 2011. For the entire three year projection period (2009-11), tissue paper capacity is

slated to rise at an average annual rate of 0.7%, as compared with 1.6% average annual growth from 2000 through 2008.

PAPERBOARD GRADES

Linerboard capacity increased 1.9% in 2007 and 2.1% in 2008. Recycled linerboard capacity increased 434,000 tons in 2008, mostly reflecting reclassifications; unbleached Kraft linerboard capacity rose by 105,000 tons. The 2008 increase in linerboard capacity partly reflected the residual impact of a large machine shifting from the production of uncoated free sheet to linerboard in the second half of 2008.

With a new recycled linerboard machine coming on line in early 2009, linerboard capacity will increase 0.8% this year, 0.7% in 2010 and 0.5% in 2011.

Capacity to produce **corrugating medium** held nearly stable in 2008 at 10.5 million tons. Recycled medium capacity rose by 109,000 tons while semichemical medium capacity declined by 121,000 tons, reflecting in part the closure of a semichemical medium mill in October 2007 and a recycled medium machine in October 2008. Corrugating medium capacity is projected to decline an additional 1.2% in 2009 – about 130,000 tons – resulting from residual effect of the above-mentioned closure in 2008. Corrugating medium capacity is slated to rise 0.4% in 2010 and 0.5% in 2011.

Bleached Paperboard (excluding bleached linerboard) capacity edged up 0.6% in 2008 to 6.0 million tons. Declines in the "other" category were offset by expansions in both the folding category and the milk carton stock category. The Survey projects that bleached paperboard capacity will remain essentially flat over the projection period (2009-11).

Recycled Paperboard (excluding recycled containerboard and gypsum wallboard facings) capacity expanded a fractional 0.2% in 2008, after contracting during the 2001-07 period at an average annual rate of 3.1%. Last year's increase in recycled paperboard capacity mainly took place in the "other" category, which increased by 0.8% or 20,700 tons. Set-up declined 6.9% or 14,000 tons, and folding edged up 0.1% or 2,100 tons.

Five recycled paperboard mills (seven machines) closed their doors during the second half of 2008, and another mill will be shutting down in 2009. The impact of these closures is projected to result in a 5.8% decline in recycled paperboard capacity this year. The Survey shows recycled paperboard capacity dropping 0.3% in 2010 and remaining flat in 2011.

U.S. capacity to produce **gypsum wallboard** facings increased 1.1% in 2008 after declining during the three previous years. Moreover, the Survey projects that capacity to produce this grade will

increase 3.0% in 2009 and 0.4% in 2010. Most of the increases result from the startup of a rebuilt machine in the second quarter of 2008. The Survey indicates no change in gypsum wallboard facings capacity in 2011.

It should be noted that three gypsum wallboard mills were indefinitely closed in 2008; another mill was indefinitely idled early this year.

Unbleached Kraft folding boxboard capacity held stable in 2008 at nearly 2.6 million tons, but is slated to decline by 2.6% in 2009, resulting from the closure of a machine in December 2008. No changes are indicated by the Survey for 2010 or 2011.

MARKET PULP

Chemical paper grade market pulp capacity rose 3.8% in 2007 and an additional 2.9% in 2008 to almost 10.0 million short tons. However, it is projected to decline 4.1% this year, reflecting the closure of a mill in late 2008. The Survey indicates that chemical paper grade market pulp capacity will increase 0.5% in 2010 and hold stable in 2011.