



AF&PA News

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AF&PA 48th Annual Capacity Survey Synopsis

OVERVIEW

U.S. capacity to produce paper and paperboard edged down 0.6% in 2007, according to the American Forest & Paper Association's *48th Annual Survey of Paper, Paperboard, and Pulp Capacity*. Paper and paperboard capacity previously declined 1.6% in 2006 and at an average annual rate of 0.7% for the period from 2000 through 2007.

The capacity declines of recent years reflect weak demand for some paper and paperboard grades. However, U.S. exports of paper and paperboard have increased briskly during the past year or so, while imports have eased, helping to support domestic production.

Looking ahead to the projection period, the Survey shows paper and paperboard capacity declining 0.7% in 2008 and subsequently rebounding 0.2% in 2009 and 0.3% in 2010. For the entire three-year period, capacity is projected to contract at an average annual rate of just 0.1%. Note that all capacity projections are subject to change, particularly those for 2009 and 2010.

PAPER GRADES

U.S. **newsprint** capacity reached an all-time high of 7.46 million tons in 2000, but has recorded steady declines since then, falling a cumulative 28.7% to 5.32 million tons in 2007. This marked the lowest point for U.S. newsprint capacity since 1980. Recent annual declines measured 13.1% in 2005, 4.0% in 2006, and 3.7% in 2007.

Two newsprint mills – one of which had been closed for some time – were removed from the Survey base in 2007, which contributed to that year's reduction in newsprint capacity as well as to the projected 7.4% decline scheduled to take place in 2008. The residual impact on 2008 capacity reflects the fact that the mills were taken out of the Survey base for only part of 2007. The Survey shows subsequent newsprint capacity declines moderating to 1.0% in 2009 and 0.2% in 2010. These declines reflect projected capacity shifts to other grades, primarily uncoated mechanical paper.

Total capacity to produce the four major **printing-writing paper** grades contracted 1.2% in 2007 to 25.30 million tons. Printing-writing paper capacity declined 1.2% in 2006 and at an average annual rate of 1.0% for the period from 2000 through 2007. The longer-term declines have been concentrated in the uncoated free sheet and coated mechanical papers grades. Survey responses indicate that printing-writing paper capacity will decline by 3.7% in 2008, 1.4% in 2009, and will level off in 2010. Brief profiles of capacity-related developments regarding the individual printing-writing paper grades follow.

After rising by 8.2% in 2005 and 0.8% in 2006, **uncoated mechanical paper** inched up 0.4% in 2007 to 2.27 million tons. The 2007 increase partly reflects the carryover impact from the shifting of some newsprint capacity to uncoated mechanical in second quarter of 2006. Uncoated mechanical capacity is slated to decline 9.4% in 2008, reflecting among other things the permanent closure of a machine - which had been indefinitely idle since late 2003 - in the fourth quarter of 2007. It is then expected to increase 3.5% and 0.5% respectively in 2009 and 2010, primarily due to capacity shifts from newsprint.

Coated mechanical paper capacity expanded 2.3% in 2007 to 4.78 million tons, reflecting swings from coated free sheet. Three machines producing coated mechanical paper have been removed from the Survey base during 2008 – one in the first quarter and two others in the third quarter. However capacity swings from coated free sheet and other paper grades more than compensate for the removed capacity; hence, capacity is slated to increase 1.3% in 2008. Capacity is projected to decline 3.2% in 2009, due to residual effect of the 2008 closures. Capacity to produce this grade is projected to edge up 0.2% in 2010.

Following increases of 2.3% in 2005 and 3.4% in 2006, **coated free sheet** capacity edged down 0.2% in 2007, to 5.30 million tons. In 2007, capacity reductions due to a shut paper machine and swings to coated mechanical paper were mostly compensated by additions from the restart of a previously shut mill and swings from other paper grades. The Survey projects coated free sheet capacity to decline another 0.3% in 2008 and 2.1% in 2009, reflecting the full effect of the restarted paper machine, shutdown of a paper machine in second

quarter of 2008, and capacity swings to coated mechanical and specialty grades. Coated free sheet capacity is expected to hold steady in 2010, rising just 0.1%.

Uncoated free sheet capacity continued to contract in 2007, declining 3.1% to 12.95 million tons. Capacity to produce this grade previously declined at an average annual rate of 2.0% from 2000 through 2007. The 2007 decline reflects the removal of several machines from the Survey base and the shifting of uncoated free sheet capacity to other grades at one location during the second half of 2007. Additional capacity is slated to be shifted out of uncoated free sheet to other products during 2008 and five machines are slated to be closed in the first half of the year. The Survey indicates that uncoated free sheet capacity will decline 6.0% in 2008, 1.2% in 2009, and then edge down just 0.2% in 2010.

Unbleached Kraft paper capacity rose 2.3% in 2007 to 1.60 million tons following a 5.3% decline in 2006. The increase is mainly due to the re-classification of capacity from specialty papers to unbleached Kraft paper. U.S. capacity to produce this grade of paper is projected to rise a fractional 0.1% in 2008 and 0.6% in 2009. No change is projected for 2010.

Bleached packaging and industrial converting paper capacity rose 4.4% in 2007 but is slated to contract 22.1% this year and 3.6% in 2009. No change is indicated for 2010. Two paper machines producing both bleached and unbleached Kraft paper were permanently closed – one in December 2007 and another in January 2008. It should be noted that bleached Kraft paper is mostly made on machines that also produce other paper and paperboard grades; hence its capacity is subject to swings based on mix of grades for any given year.

After edging down 0.4% in 2006, **tissue paper** capacity declined an additional 1.5% in 2007 to 8.11 million tons. These declines partly reflected the removal of ten tissue machines from the Survey base during various points in 2006 and the removal of six additional machines during 2007. At the same time, six new tissue paper machines commenced operations during 2007 but the full impact of these machines will not be reflected in capacity until 2008.

Tissue paper capacity is slated to rise 2.4% in 2008, reflecting the residual impact of the six new machines that started up in 2007 and the partial-year impact of one new machine scheduled to begin operating in 2008. The Survey shows tissue paper capacity rising 1.7% in 2009, when three new machines are scheduled to begin operating, and 1.8% in 2010, when two new machines are expected to come on-line.

Tissue paper capacity is projected to rise at an average annual rate of 2.0% a year for the projection period (2008-10). That compares with 1.6% average annual growth from 2000 through 2007, and 2.1% average annual growth during the 1990s.

PAPERBOARD GRADES

After holding essentially stable from 2003 through 2006, **linerboard** capacity increased 1.9% in 2007 to 25.98 million tons. It is projected to rise an additional 2.4% in 2008. These increases partly reflect the conversion of an uncoated free sheet machine to linerboard during the second half of 2007. Linerboard capacity is projected to climb 0.5% in 2009 and 0.1% in 2010, with part of those increases due to a new recycled containerboard machine coming on-line in December 2008. Overall, linerboard capacity is projected to rise at an average annual rate of 1.0% during the projection period (2008-10).

Corrugating medium capacity declined 2.8% in 2007 and is slated to decrease an additional 3.1% this year. These declines largely reflect the shutdown, and removal from the Survey base, of four corrugating medium machines in 2007. Corrugating medium capacity is projected to rise 1.4% in 2009, in part reflecting the new machine mentioned previously, and an additional 1.0% in 2010.

Bleached paperboard capacity rose 3.2% in 2007 to 6.0 million tons, due to capacity swings from bleached bristols as well as increases from efficiency gains. Capacity is slated to hold nearly stable during the next three years. At the sub-grade level, bleached folding boxboard capacity increased 4.5%, while milk carton stock increased 1.0%.

Total **recycled paperboard** capacity, which includes folding, set-up, and other, declined 3.5% in 2007 to 5.23 million tons. Reductions within the overall category ranged from 5.1% for folding boxboard to 4.7% for set-up and 1.9% for other.

Decline in the recycled paperboard capacity for 2007 followed a string of declines that began in 2001 and were particularly large in 2005 (-4.7%) and 2006 (-3.1%). However, this year's Survey points to a modest re-expansion of recycled paperboard capacity during the next three years, with increases projected at 1.2% in 2008, 0.5% in 2009, and 0.1% in 2010. The increase in 2008 capacity is due to the rebuild and restart of a previously shut paper machine to produce recycled paperboard.

After declining 3.7% in 2006, capacity to produce **gypsum wallboard facing** declined 4.9% in 2007 to 1.71 million tons. The decline is mainly due to some of the machines swinging to produce recycled containerboard, as a weak housing market reduced demand for gypsum wallboard. However, capacity is expected to rise 6.3% in 2008 and 4.9% in 2009, reflecting the startup of a new machine in the second quarter of 2008. Gypsum wallboard facing capacity is projected to rise 0.4% in 2010.

Unbleached Kraft folding boxboard capacity rose 2.1% in 2007, following a 3.0% expansion in 2006. Capacity to produce this grade is projected to edge down 0.3% in 2008 and then to expand 1.2% in 2009. No change is indicated for 2010. Capacity changes are primarily driven by changes in the mix of sub-grades.

U.S. chemical paper grade market pulp capacity expanded by 3.8% in 2007 to 9.70 million tons after declining 4.7% in 2006. Perhaps reflecting strong market conditions, chemical paper grade market pulp capacity is slated to rise 3.7% in 2008 and 1.4% in 2009 and then level off in 2010, according to the Survey respondents. The capacity expansions reflected the mid-2007 re-start of a mill that had previously been idled and removed from the Survey base, as well as the shifting of a mill from uncoated free sheet to mostly softwood market pulp during 2008. Over the next three years (2008-10), bleached softwood chemical grade market pulp capacity is slated to rise at an average annual rate of 2.5%, while bleached hardwood chemical grade market pulp capacity is projected to rise at an average annual rate of 2.0%.

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