



PAPER & CONVERTING MACHINERY

CURRENT TRENDS

- The number of newsprint, printing, and writing paper mills is declining; however, tissue and corrugated medium were areas of growth in 2016. Many mills are adapting production, converting capacity to these sectors
- Nevertheless, a significant amount of surplus equipment has hit the market in recent years, creating competitive conditions. In the current market, paper machines that are 100 to 200 inches and less than 25 years old are most desirable. Plant support equipment and spare parts are in solid demand and values are stable

PROJECTED VALUES (12-MONTH OUTLOOK)



BY THE NUMBERS

1.47m

tons of North American paper, board, and pulp capacity shut down in 2016

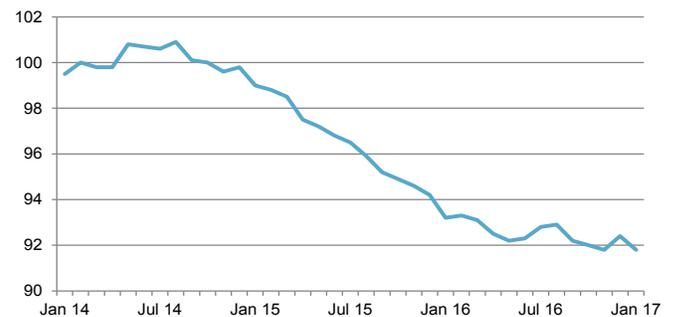
-1.2%

year-over-year decline in paper and paperboard production in the U.S. through October

76%

of machine shutdowns involved printing and writing paper in 2016

IMPORT PRICE INDEX PULP, PAPER, AND PAPERBOARD MILLS FOR INDUSTRIALIZED COUNTRIES



Source: U.S. Bureau of Labor Statistics; retrieved from FRED, Federal Reserve Bank of St. Louis

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INDUSTRY CONSOLIDATION CONTINUES: Nearly 1.5 million tons of North American paper, board, and pulp capacity were shut down in 2016, according to PPI Pulp & Paper Week. This was a slower pace than the year prior but follows a long-term trend of equipment coming offline. Major shutdowns during 2016 included Verso's mills in Wickliffe, Kentucky and Jay, Maine following its bankruptcy filing in January; UPM's closure of Madison Paper Industries in Maine; and Resolute Forest Products' permanent shutdown of one newsprint machine in its August, Georgia mill. Moreover, several more machines have converted to containerboard, packaging, fluff pulp, and tissue paper production, which are healthier portions of the market. Most capacity reductions involved machines making printing paper, writing paper, and newsprint, segments hardest hit by the digital era. Since 2000, domestic newsprint capacity has plunged 76 percent, and printing and writing paper capacity dropped 43 percent, according to the American Forest & Paper Association. This means a lot of machinery and equipment has hit the market in recent years, flooding dealers. The industry tightening is expected to continue. IBISWorld expects the number of mills to decline at an annualized rate of 2.2 percent over the five years to 2021.

HIGH INSTALLATION COSTS LOWER REMOVAL VALUES: While paper machines are typically the biggest cost in a mill, they are very difficult to sell for removal under duress. Appraised values tend to represent a small percentage of depreciated Book Value. This is because a significant portion of the original cost is for special improvements including installation pits, poured concrete foundations, floor drains, erected steel infrastructure, extensive networks of process piping (e.g. steam, water, air), heavy electrical distribution systems, and air handling ductwork. While certain components of these systems, such as the head box, fourdriner section, press sections, dryer can sections, size press, coaters, scanners, calender, reel, and winder, can be removed and sold piecemeal, the majority of the installation improvements either cannot be removed or are not economically feasible to remove. The cost of those improvements is lost when the equipment is sold for removal. Knowledgeable buyers typically disregard any value associated with them and, in some cases, may even discount offers when significant de-installation and re-installation costs are present. There could be some scrap value for the wiring, piping, vats, and structural supports; however, don't assume they have worth. Values for aluminum, stainless steel, and copper have plummeted in recent years, and remnants that once were viewed as "boot collateral" have become a burden. Discuss this potential liability with your appraiser.

DEMAND FOR SUPPORT EQUIPMENT AND SPARES STEADY: While paper machines are increasingly difficult to sell in their entirety, the support equipment throughout the mill continues to be frequently sold on a removal basis. Stock prep equipment, pumps, screens, agitators, lab equipment, rolling stock, rewinders, and roll wrap machines are examples of equipment that can add value. All paper manufacturers have this equipment in mills, regardless of the product being made, widening its marketability. These components are more readily dismantled and can be moved at a reasonable cost.

Beyond that, most mills have a significant inventory of spare motors and parts to ensure paper machines can continue running around the clock. Because most mills operate older machines, the secondary market is where many of these transactions are happening. While these items aren't typically included in an appraisal, be aware that they could have noteworthy value in the event of liquidation.

MORE THAN SIX MONTHS NEEDED TO SELL MOST MACHINES: Adequate time is needed to market paper machines internationally. Buyers will need more time to conduct required due diligence and line up financing for a purchasing decision of this magnitude. In appraisal scenarios considering less than a six-month disposition period, it is likely that paper machines would sell only for the value of their better components, such as desirable press sections, some of the machine rolls, scanners, pressure-rated dryer cans, selected calendars, and reels.

CONSIDER A DIFFERENT APPROACH: It often surprises lenders and companies that most machines valued for removal are worth a fraction of their original value. That is why Gordon Brothers recommends consideration of a business valuation overlay, in which machinery is valued to remain in-place and in-operation. This approach allows appraisers to consider income-generating and cash flow aspects of the business that are not considered when estimating liquidation values for removal. This detailed business analysis attributes some portion of the overall enterprise value to the machinery. The valuation principles applied combine the knowledge of the productive capacity of the plants with the knowledge of the demand for and profitability of the products it produces in the current competitive environment.

By performing a business valuation simultaneously with the process of valuing the machinery and equipment, it is possible to determine the amount of value within the framework of the entire enterprise, as returns (deductions) are taken for other contributory asset categories (working capital, real estate, and identifiable intangibles). This value conclusion is representative of all physical depreciation and functional and economic obsolescence affecting the value of the equipment, quantified through the valuation of the business enterprise. While many lenders are wary of incurring the additional expense of a business valuation overlay, it can be a more accurate way of determining the true value of paper machines.

BWARE OF ENVIRONMENTAL CONSIDERATIONS: Regardless of the valuation scenario, lenders must take care to protect themselves from environmental liabilities. Manufacturing paper and pulp uses large amounts of wood fiber, water, steam, and chemicals. This process generates waste streams that must be properly treated and disposed of into the air, municipal sewage, nearby waterways, or landfills. Over time, environmental laws have evolved necessitating significant capital investments to improve the remediation of these environmentally sensitive waste streams. Properties are often grandfathered with respect to pre-existing environmental issues as long as their existence does not proliferate into adjoining properties or water systems. These pre-existing liabilities may pass from owner to owner or be split into pre-sale or post-sale issues that remain with prior owners. The variations on the magnitude or the assumption of these liabilities often manifest themselves into adjustments that impact the sale of the equipment and real property. This is especially true when operations are shut down and sold as a non-operating mill. Once operations cease, typically the equipment and real property are the only assets left to transfer, and any environmental issues negatively impact the value of those remaining assets. Lenders need to be particularly aware of how (or if) to take possession of these assets.



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