

Paper/Forest Products

Jan. Price Check: C'board demand a bit better but prices hold; Boxboard flat

Industry Overview

C'board & Boxboard flat, tho' some improvement

Fastmarkets RISI's Pulp & Paper Week (PPW) published its January price review for paperboard. Overall, containerboard prices were flat both domestically as well as in export. As for boxboard, prices were flat across the grades. Companies in our coverage with exposure to containerboard are International Paper (IP; U/P), Packaging Corp (PKG; Neutral) and WestRock (WRK; Buy). We are more positive on boxboard risk/reward — along with WRK, Graphic Packaging (GPK) and Sonoco (SON) are rated Buy, while we have a Neutral on Greif (GEF). On balance, article discussion suggested some overall improvement in demand, though commentary was quite varied. We were not expecting the full increase to be implemented on “day one” but thought that, with all the majors attempting increases and building recovered paper (RCP) cost pressures, a portion of the price increase would hit in January (one-third of buyers saw higher prices in the month). That said, even though there were some positive industry nuggets in the article, investors will likely be somewhat disappointed that RISI reflected no movement in January. RISI's contacts cited concerns over the level of price increases by major producers in containerboard (and boxboard to a lesser degree) given the supply/demand environment. See below for additional details.

Deep c'board & boxboard roster at Global Ag & Mats Conf.

In that regard, our Annual Global Agriculture & Materials conference in Ft. Lauderdale, 2/28-29 will host most of the publicly-traded boxboard and containerboard companies for presentations, one-on-ones, expert panels, and several company dinners. We have a dinner with IP, firesides with PKG, IP, GPK, SON, Smurfit Kappa (SKG; covered by our colleague Joffrey Belicha Meller) and Clearwater (CLW; not rated), and panels on boxboard, containerboard, recycled fiber and sustainable plastics with discussion by SON, CLW, private containerboard companies, consultants and Fastmarkets RISI. Please call your BofA representative for information.

C'board: prices flat domestically

Containerboard prices were flat domestically in January for corrugating medium (East/West, 26lb) prices at \$695/ton (midpoint) and unbleached kraft linerboard (East/West, 42lb) at \$825/ton (midpoint), resulting in liner staying at a \$130/ton spread to medium. North American boxmakers stated that though the market seems more balanced, and some producers saw strong year-end and early-2024 trends, the ‘restocking’ trajectory from consumers is ultimately slower than anticipated. PPW's contacts reported linerboard deliveries are at healthy levels between three to five weeks. That said, RISI mentioned that some companies that have ramped up recycled containerboard capacity in 2023 may be offering discounted prices.

Export markets also flat

In export containerboard markets, pricing remained flat in the four regions, though RISI contacts anticipate a pickup in US kraft linerboard to Mexico. Prices remained at €505/tonne (midpoint) in Southern Europe, \$515/tonne (midpoint) in Hong Kong/China, \$620/tonne in Mexico, and \$485/ton in Central/South America.

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Boxboard prices: flat, some optimism

As for boxboard, prices were flat in January for coated unbleached kraft (CUK) at \$1,470/ton, solid bleached sulfate (SBS) cup stock and folding carton at \$1,450/ton, coated recycled board (CRB) at \$1,250/ton, and uncoated recycled board (URB) at \$1,020/ton. While the market has not tightened there was optimism that December was somewhat better than anticipated and that demand will elevate over coming quarters. However, RISI's contacts generally noted that demand for SBS remained slow, and several questioned what cost pressures were driving price increase attempts in CUK, a virgin grade not directly impacted by recycled fiber cost pressures (producers quoted in the article pointed to rising labor, chemical and capital costs).

Pulp prices: higher

Preliminary January pricing shows northern bleached softwood kraft (NBSK) prices were up \$10/MT at \$1,360/MT (midpoint) and southern bleached softwood kraft (SBSK) prices were also up \$10/MT at \$1,270/MT (midpoint). Fluff pulp prices (which is frequently priced at a spread to SBSK) were up \$15/MT at \$1,805/MT (midpoint). Meantime, southern bleached hardwood kraft (SBHK) and northern bleached hardwood kraft (NBHK) prices were up \$35/MT to \$1,160/MT (midpoint). Separately, we will receive data for graphic paper pricing on Friday, (1/26), including for uncoated freesheet (UCFS) cut-size and offset grades. In our coverage, companies with exposure to pulp and UCFS include Sylvamo (SLVM; Buy), IP and PKG.

Recent Paper & Wood Product Prices

Exhibit 1: Historical and Forecasted Pricing for Pulp, Paper/Board & Wood Products

Domestic containerboard, boxboard, and paper pricing in January.

	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	1Q24E	2Q24E	3Q24E	4Q24E
Market Pulp (NBSK, \$/mt)	\$1,510	\$1,420	\$1,340	\$1,270	\$1,270	\$1,270	\$1,315	\$1,350	\$1,360	\$1,370	\$1,390	\$1,390	\$1,340
Market Pulp (NBHK, \$/mt)	1,280	1,160	1,070	990	1,010	1,040	1,085	1,125	1,160	1,140	1,160	1,150	1,100
Market Pulp (SBSK, \$/mt)	1,460	1,360	1,270	1,200	1,180	1,180	1,235	1,260	1,270	1,283	1,303	1,303	1,253
Market Pulp (SBHK, \$/mt)	1,280	1,160	1,070	990	1,010	1,040	1,085	1,125	1,160	1,140	1,160	1,150	1,100
Fluff Pulp (U.S. Southern Kraft, \$/mt)	1,980	1,890	1,800	1,730	1,710	1,710	1,765	1,790	1,805	1,770	1,780	1,770	1,750
Coated Groundwood (no. 5, 40-lb)	1,250	1,250	1,250	1,250	1,250	1,230	1,230	1,230	n/a	1,205	1,205	1,205	1,180
Coated Free Sheet (no. 3, 60-lb)	1,450	1,450	1,450	1,450	1,450	1,435	1,435	1,435	n/a	1,410	1,410	1,410	1,385
Uncoated Free Sheet (20-lb, repro bond)	1,475	1,465	1,465	1,465	1,465	1,445	1,445	1,445	n/a	1,435	1,425	1,425	1,425
Uncoated Free Sheet (50-lb offset rolls)	1,360	1,350	1,350	1,330	1,320	1,320	1,305	1,305	n/a	1,280	1,255	1,245	1,245
Uncoated Groundwood (SC-A, 35-lb)	1,140	1,120	1,120	1,120	1,120	1,120	1,110	1,110	n/a	1,090	1,070	1,060	1,050
Newsprint (30-lb, east coast)	880	855	855	855	845	845	845	820	n/a	800	790	780	780
Corrugating Medium (East, Semi-Chem, 26-lb)	715	715	715	715	715	715	695	695	695	735	775	775	795
Corrugating Medium (West, Semi-Chem, 26-lb)	715	715	715	715	715	715	695	695	695	735	775	775	795
Unbleached Kraft Linerboard (East, 42-lb)	845	845	845	845	845	845	825	825	825	865	885	885	905
Unbleached Kraft Linerboard (West, 42-lb)	845	845	845	845	845	845	825	825	825	865	885	885	905
Kraft Paper (Grocery Sack, 50-lb)	1,195	1,195	1,175	1,175	1,175	1,175	1,175	1,175	1,175	1,175	1,175	1,200	1,200
Coated Unbleached Kraft Board (20-pt. folding carton)	1,490	1,470	1,470	1,470	1,470	1,470	1,470	1,470	1,470	1,470	1,480	1,510	1,510
Bleached Kraft Board (16-pt, folding, C1S)	1,530	1,530	1,510	1,450	1,450	1,450	1,450	1,450	1,450	1,450	1,450	1,450	1,470
Coated Recycling Boxboard (20-pt. clay coated news)	1,270	1,270	1,270	1,270	1,270	1,250	1,250	1,250	1,250	1,250	1,260	1,300	1,300
Uncoated Recycling Boxboard (20-pt. bending chip)	1,040	1,040	1,040	1,040	1,040	1,020	1,020	1,020	1,020	1,020	1,050	1,060	1,060
Old Corrugated Containers (US Average)	41	47	49	54	63	73	75	79	87	95	105	115	110
Random Lengths Framing Lumber Composite (\$/mbf)	400	406	460	430	428	395	371	385	400	400	450	460	430
Random Lengths Structural Panels Composite (\$/msf)	537	537	616	643	645	579	578	594	601	545	575	590	545
Random Lengths OSB 7/16" North Central (\$/msf)	300	330	466	510	497	375	403	414	415	390	420	440	380
Random Lengths So. Plywood 15/32" 4-Ply (\$/msf)	553	503	528	556	627	637	595	617	641	595	625	640	605

Source: Fastmarkets RISI / PPW, Random Lengths, BofA Global Research estimates.

BofA GLOBAL RESEARCH

Stocks mentioned

Prices and ratings for stocks mentioned in this report

BofA Ticker	Bloomberg ticker	Company name	Price	Rating
GPK	GPK US	GraphicPackaging	US\$ 25.24	B-1-7
GEF	GEF US	Greif Inc.	US\$ 63.37	B-2-7
IP	IP US	Intl Paper Co	US\$ 36.74	B-3-7
PKG	PKG US	Packaging Corp	US\$ 164.38	B-2-7
SON	SON US	Sonoco Products	US\$ 57.36	B-1-7
SLVM	SLVM US	Sylvamo	US\$ 47.78	C-1-7
WRK	WRK US	WestRock	US\$ 39.99	B-1-7

Source: BofA Global Research



Price objective basis & risk

Graphic Packaging (GPK)

Our \$30 PO is based on the average of (a) an EV/EBITDA valuation calculated by applying a 7.5x EV/EBITDA multiple to our 2024 EBITDA estimate of \$1.8bn (our multiple is consistent with where comparable companies have traded), (b) a P/E valuation calculated by applying a 14x P/E multiple to our 2024 EPS estimate of \$2.75 (our multiple is consistent with where comparable companies have traded), (c) a free cash flow (FCF) valuation based on our estimate of \$676mn in FCF, a calculated cost of equity of 10% and forecast rate of growth of 2%.

Risks to our PO: (1) closing and integration risks associated with the acquisitions, (2) demand trends in food & bev and other GPK end markets, (3) potential volatility in fiber, energy, other input costs, (4) paper/board sector volatility & demand trends, including trade flow volatility created by exchange rates, (5) fundamental trends that could wind up being worse than expected, (6) should trends reverse in the policy outlook for the current Administration, that would present a source of volatility and risk for the shares, (7) various factors associated with its new CRB machine

Also, industry & economic trends could prove weaker or stronger than modeled. Greater-than-expected weakness could lead to valuation multiples and earnings below our forecasts, even as better-than expected trends could lead to a higher relative multiple premium & stock price.

Greif Inc. (GEF)

Our \$77 PO for Class A shares is based on (1) a 14x calendarized 2024E P/E, (2) an 10x calendarized 2024E EV/EBITDA which derives a value for the combined equity market cap of Class A and B shares. We believe the multiples (a discount versus market and peers) are appropriate given weaker fundamentals against past normalized ranges (PE of 10-17x) and 5-10x EV/EBITDA for peers. We assume the elimination of a premium or discount to our combined equity value will occur equally for Class A and B, driving our target for Class A shares on this method, and (3) our intrinsic FCF valuation assumes \$400mn normalized FCF, 10% cost of equity and 2% growth rate.

Risks to our PO: (1) unfavorable demand in GEF's markets and geographies, (2) volatility in steel, resin, OCC, energy and other inputs, (3) acquisition/integration risks, (4) Class B share ownership, which retains voting power, is 70% held by insiders, (5) Regulatory review or litigation, (6) trade policy.

International Paper Co. (IP)

Our \$37 price objective is based on an average of (a) an EPS forecast of \$2.25 in 2024E and a P/E of 14x, which is consistent with historical ranges, (b) a normalized free cash flow (FCF) estimate of \$1bn, a calculated cost of equity of 10% and forecast rate of growth of 2%, (c) our IP sum-of-the-parts (SOTP) value, based on normal EBITDA, which is an average of historical periods 2016-22 and our forecasts through '25E.

Risks to our price objective are (1) the broader employment & macro picture, (2) paper/board sector volatility & demand trends, (3) wastepaper/input cost volatility, (4) trends in the US\$ and its effect on trade flows, (5) emerging market risk, (6) operational risks related to investment projects, (7) IP's pension, (8) the potential for new capacity to come into the market, (9) potential volatility coming from any future Administration policy changes. Fundamental trends could wind up worse than expected, causing further downside to the shares relative to our PO. Better performance or macro news could cause the shares to perform better than our price objective.

Packaging Corp. of America (PKG)

Our \$176 price objective is based on an average of (a) an EPS forecast of \$8.15 in 2024E and a P/E of 20x, in line with peer multiples, (b) a normalized free cash flow (FCF) estimate of \$750mn, a calculated cost of equity of 9% and forecast rate of growth of 4%, (c) a sum-of-the-parts (SOTP) value, based on forecast midcycle EBITDA or per ton(ne) replacement values.

Risks to our price objective being achieved are (1) PKG's leverage to economic cycles, (2) containerboard market volatility and demand trends, (3) input cost volatility, (4) demand, supply-chain and other risks created by the Covid-19 pandemic, (5) potential structural changes in the economy, (6) the potential for mill or converting operations to perform less well than anticipated, (7) the potential for new capacity to come into the market, (8) volatility coming from changes by the Administration. While we've tried to be conservative in our modeling, fundamental trends could wind up worse than expected, causing downside risk to the shares relative to our price objective. Similarly, PKG results could wind up stronger than our forecasts, causing the shares to move beyond our PO.

Sonoco Products Co. (SON)

Our \$70 price objective is derived from a three-part valuation approach, which includes: (1) a 13-14x 2024E P/E multiple, (2) an 9-10x 2024E EV/EBITDA multiple, and (3) our intrinsic free cash flow (FCF) valuation, which assumes \$600mn of normalized FCF, 10% cost of equity, and -2% growth rate. The P/E and EV/EBITDA multiples are consistent with past valuation multiples within packaging.

Downside risks to our price objective are: (1) potential volatility in old corrugated container (OCC) prices, (2) execution on restructuring and integration initiatives, (3) integration of present acquisitions, (4) periodic volatility in its business, (5) execution of its consumer/growth strategies in packaging, (6) unexpected volume and pricing trends, (7) macroeconomic trends, (8) potential trend reversals related to Administration policies. In addition, energy and commodity cost volatility represent ongoing risk for all packaging companies.

Upside risks to our PO are: (1) Sonoco's ability to acquire businesses accretively, making our forecasts too pessimistic, driving SON above our PO, (2) Additionally, should volumes accelerate while input costs stay benign, this could lead to higher earnings than we are projecting and result in the stock exceeding our PO, (3) The factors noted earlier could play out in a way that causes results to exceed our forecast and drive the shares above our PO.

Sylvamo Corp. (SLVM)

Our \$59 price objective is based on an average of: (a) an EPS forecast of \$4.75 in 2024E and a P/E of 12x, which is within the range in which paper companies have traded, (b) a normalized FCF estimate of around \$258mn, a calculated cost of equity of 8% and forecast rate of decline of 3%, (c) our SLVM sum-of-the-parts (SOTP) value, based on forecast midcycle EBITDA values and applying multiples of 4-7x across the regions.

Risks to our PO are: (1) Broader employment and macro picture, (2) Paper sector volatility and demand trends, (3) Changes in the cost or availability of key inputs, energy and transportation, (4) Demand, supply chain and other risks created by the pandemic, (5) Potential cash outflow related to the pending tax ruling on the deductibility of goodwill from IP's 2007 acquisition of the Luis Antonio mill, (6) Emerging market risk, including potential for volatility in Latin America, (7) Potential dis-synergies and operational risks related to the spin-off from IP, (8) Operational risks associated with the Svetogorsk recovery boiler project, (9) Potential for supply/demand imbalances in UCFS, (10) Potential loss of a key customer, (11) Risks of fragmentation in Europe. Volatility in macro and micro factors and the earnings leverage that exists could mean fundamental trends wind up worse than expected, causing further downside to the shares relative to



our PO. Alternatively, better performance could cause the shares to perform better than our PO.

WestRock (WRK)

Our \$48 PO is based on an average of (a) a calendarized EPS forecast of \$2.38 in C24 and a P/E of 16x, given optionality with the potential Smurfit Kappa deal, (b) a normalized free cash flow (FCF) of \$1.1bn, a cost of equity of 11% and forecast growth rate of 3%, (c) our WRK sum-of-the-parts (SOTP) value, based on our evaluation of normal EBITDA, which is an average of historical periods 2020-22 and our forecasts through '25E. Based on current market and sector valuations, we estimate 9x to 10x EV/EBITDA multiple for Corrugated Packaging and an 8x to 9x multiple for Consumer Packaging. Separately, we apply 6x EV/EBITDA multiple for WRK's Global Paper business and a 5x EV/EBITDA multiple for WRK's Distribution businesses.

Risks to our PO are (1) the broader employment, macro and consumer spending outlook, (2) potential volatility in OCC prices, (3) paper/board sector volatility and demand trends across end markets, (4) supply-chains, (5) potential governmental policy and regulatory changes, (6) risks related to the closing of the Smurfit Kappa transaction. As with all our packaging and paper/forest product companies, WRK must contend with a variety of macro, FX, commodity inflation and other considerations. Should the factors above impact WRK more negatively than expected, its results and stock price will have difficulty achieving our forecasts. Similarly, should these factors combine more positively than expected, WRK's results and stock price could exceed our forecasts.

Analyst Certification

I, George L. Staphos, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

US - Paper and Packaging Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
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	AptarGroup Inc.	ATR	ATR US	George L. Staphos
	Berry Global	BERY	BERY US	George L. Staphos
	Brady Corp. - CI A	BRC	BRC US	Cashen Keeler
	Crown Holdings Inc.	CCK	CCK US	George L. Staphos
	Graphic Packaging	GPK	GPK US	George L. Staphos
	O-I Glass Inc	OI	OI US	George L. Staphos
	Pactiv Evergreen	PTVE	PTVE US	George L. Staphos
	Sealed Air Corp.	SEE	SEE US	George L. Staphos
	Silgan Holdings Inc.	SLGN	SLGN US	George L. Staphos
	Sonoco Products Co.	SON	SON US	George L. Staphos
	Sylvamo Corp.	SLVM	SLVM US	George L. Staphos
	WestRock	WRK	WRK US	George L. Staphos
	Weyerhaeuser Co.	WY	WY US	George L. Staphos
NEUTRAL				
	Ardagh Metal Packaging S.A.	AMBP	AMBP US	George L. Staphos
	Greif Inc.	GEF	GEF US	George L. Staphos
	Packaging Corp. of America	PKG	PKG US	George L. Staphos
	PotlatchDeltic Corp.	PCH	PCH US	George L. Staphos
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	Amcor PLC	AMCR	AMCR US	George L. Staphos
	Avery Dennison Corp.	AVY	AVY US	George L. Staphos
	Ball Corp.	BALL	BALL US	George L. Staphos
	Boise Cascade Company	BCC	BCC US	George L. Staphos
	International Paper Co.	IP	IP US	George L. Staphos
	Louisiana-Pacific Corp.	LPX	LPX US	George L. Staphos

Disclosures

Important Disclosures

Equity Investment Rating Distribution: Packaging Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	14	60.87%	Buy	10	71.43%
Hold	6	26.09%	Hold	5	83.33%
Sell	3	13.04%	Sell	2	66.67%

Equity Investment Rating Distribution: Paper/Forest Products Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	9	45.00%	Buy	8	88.89%
Hold	2	10.00%	Hold	1	50.00%
Sell	9	45.00%	Sell	5	55.56%

Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	1895	53.62%	Buy	1083	57.15%
Hold	832	23.54%	Hold	454	54.57%
Sell	807	22.84%	Sell	383	47.46%

^{R1} Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.



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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R2}
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Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

^{R2}Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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