

Paper/Forest Products

March Price Check: C'board and boxboard prices stay flat, while pulp up

Industry Overview

Pricing flat across c'board & boxboard; Pulp higher

Fastmarkets RISI's Pulp & Paper Week (PPW) published its March price review for paperboard, pulp, and graphic paper. Overall, containerboard prices were flat domestically and across the export markets (European export pricing was flat in €, but up \$6/ton given the slight move in the Euro). This follows a \$40/ton increase in February and commentary from RISI's contacts suggested that March demand was slightly better, given seasonality, and better than February y/y. Based on our research and comments from our recent Global Ag & Materials Conference, we had expected a stronger demand tone to be reported, and a further \$10-20/ton price increase in March. As a result, we'd expect the market to view RISI's comments as somewhat disappointing, even though early-recovery periods can be choppy. Separately and has been discussed in the trade press, producers also announced a price hike in export markets. As for boxboard, prices were flat across solid bleached sulphate (SBS), coated unbleached kraft (CUK), coated recycled board (CRB), and uncoated recycled board (URB). Meantime, preliminary pulp prices for March were up \$65-80/metric tonne (MT). In our coverage universe, companies with exposure to containerboard include International Paper (IP; Buy), Packaging Corp (PKG; Buy) and WestRock (WRK). Meantime, companies with exposure to boxboard – along with WRK – include Graphic Packaging (GPK; Buy), Sonoco (SON; Buy), and Greif (GEF; Neutral).

C'board: prices flat domestically & export hikes announced

Containerboard prices were flat domestically in March for corrugating medium and linerboard. That said, RISI's survey of market participants found that ~30% of buyers and sellers said they were paying more for linerboard (of up to \$40/ton) in March compared to February. RISI also mentioned that boxmakers are attempting to raise prices with contacts citing increases of 4-8%, while others noted 12-14% increases to pass through the containerboard hikes. Overall, contacts generally mentioned some slightly better demand to start the year but also voiced uncertainty about the pace of the demand recovery for the remainder of the year. We'll talk to contacts in the coming weeks to see what momentum remains in the original, January increase of \$70/ton – RISI reported that some producers were still trying to implement the initial \$70/ton hike, with "order repeatability" and "velocity" improving. In export containerboard markets, pricing remained unchanged across China, Mexico, South America, and Europe (European export pricing was up in dollar terms given FX). However, RISI stated that domestic producers are attempting to raise export linerboard prices by \$30-50/MT, although contacts seemed somewhat mixed on demand recovery from here.

We discuss additional points on boxboard, pulp, and graphic paper below...

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Boxboard prices unchanged, demand seems mixed

As for boxboard, prices were flat in March for coated unbleached kraft (CUK) at \$1,470/ton, coated recycled board (CRB) at \$1,250/ton, uncoated recycled board (URB) at \$1,020/ton, and solid bleached sulfate (SBS) at \$1,410/ton. Some of RISI's producer contacts appear to believe that price increases have largely been pushed through on some of the grades, but commentary from the converters appears to suggest otherwise. In CUK, contacts appear somewhat mixed on the backdrop as some cited loose supply along with sluggish to improving demand, with beverage trends being less busy than normal. As for CRB, there was (unsurprisingly) some mention of old corrugated container (OCC) pressure, but demand appears to be improving. In URB, demand also still looks to be fairly muted and contacts also expressed concerns on OCC. Lastly, in SBS, market participants again mentioned some competition from folding boxboard (FBB) imports. The broader boxboard markets were described as "slower for most", "consistent", "healthy" and "pretty good."

Pulp prices up sharply, UCFS hikes slated for April

Preliminary March pricing shows northern bleached softwood kraft (NBSK) prices were up \$80/MT at \$1,510/MT (midpoint) and southern bleached softwood kraft (SBSK) prices were also up \$85/MT at \$1,435/MT (midpoint). This follows prior price hikes from larger North American producers and RISI noted that producers have had little success in building inventories ahead of seasonal downtime. Fluff pulp prices (which are frequently priced at a spread to SBSK) were flat at \$1,840/MT (midpoint). Meantime, southern bleached hardwood kraft (SBHK) and northern bleached hardwood kraft (NBHK) prices were up \$65/MT to \$1,285/MT (midpoint). We will get graphic paper prices next Friday (3/22), but RISI noted that thirteen mills have announced price hikes for April ranging from \$60-100/ton and have cited higher production costs and tight supply.

Recent Paper & Wood Product Prices

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

Domestic containerboard, boxboard, and paper pricing in March.

	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	1Q24A	2Q24E	3Q24E	4Q24E
Market Pulp (NBSK, \$/mt)	\$1,270	\$1,270	\$1,270	\$1,315	\$1,350	\$1,380	\$1,430	\$1,510	\$1,370	\$1,390	\$1,390	\$1,340
Market Pulp (NBHK, \$/mt)	990	1,010	1,040	1,085	1,125	1,160	1,220	1,285	1,140	1,160	1,150	1,100
Market Pulp (SBSK, \$/mt)	1,200	1,180	1,180	1,235	1,260	1,290	1,350	1,435	1,283	1,303	1,303	1,253
Market Pulp (SBHK, \$/mt)	990	1,010	1,040	1,085	1,125	1,160	1,220	1,285	1,140	1,160	1,150	1,100
Fluff Pulp (U.S. Southern Kraft, \$/mt)	1,730	1,710	1,710	1,765	1,790	1,820	1,840	1,840	1,805	1,810	1,800	1,780
Coated Groundwood (no. 5, 40-lb)	1,250	1,250	1,230	1,230	1,230	1,210	1,210	N/A	1,205	1,205	1,205	1,180
Coated Free Sheet (no. 3, 60-lb)	1,450	1,450	1,435	1,435	1,435	1,405	1,405	N/A	1,410	1,410	1,410	1,385
Uncoated Free Sheet (20-lb, repro bond)	1,465	1,465	1,445	1,445	1,445	1,405	1,405	N/A	1,405	1,450	1,450	1,450
Uncoated Free Sheet (50-lb offset rolls)	1,330	1,320	1,320	1,305	1,305	1,285	1,285	N/A	1,280	1,305	1,295	1,295
Uncoated Groundwood (SC-A, 35-lb)	1,120	1,120	1,120	1,110	1,110	1,090	1,090	N/A	1,090	1,070	1,060	1,050
Newsprint (30-lb, east coast)	855	845	845	845	820	820	795	N/A	800	790	780	780
Corrugating Medium (East, Semi-Chem, 26-lb)	715	715	715	695	695	695	755	755	735	775	775	795
Corrugating Medium (West, Semi-Chem, 26-lb)	715	715	715	695	695	695	755	755	735	775	775	795
Unbleached Kraft Linerboard (East, 42-lb)	845	845	845	825	825	825	865	865	865	885	885	905
Unbleached Kraft Linerboard (West, 42-lb)	845	845	845	825	825	825	865	865	865	885	885	905
Kraft Paper (Grocery Sack, 50-lb)	1,175	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)	1,470	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)	1,450	1,450	1,450	1,450	1,450	1,450	1,410	1,410	1,450	1,450	1,450	1,470
Coated Recycling Boxboard (20-pt. clay coated news)	1,270	1,270	1,250	1,250	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	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,050	1,060	1,060
Old Corrugated Containers (US Average)	54	63	73	75	79	87	91	103	95	105	115	110
Random Lengths Framing Lumber Composite (\$/mbf)	430	428	395	371	385	399	384	414	402	450	460	430
Random Lengths Structural Panels Composite (\$/msf)	643	645	579	578	594	601	592	614	601	615	620	580
Random Lengths OSB 7/16" North Central (\$/msf)	510	497	375	403	414	415	408	432	424	480	500	450
Random Lengths So. Plywood 15/32" 4-Ply (\$/msf)	556	627	637	595	617	642	637	614	630	650	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\$ 27.64	B-1-7
GEF	GEF US	Greif Inc.	US\$ 63.66	B-2-7
IP	IP US	Intl Paper Co	US\$ 36.35	B-1-7
PKG	PKG US	Packaging Corp	US\$ 182.91	B-1-7
SON	SON US	Sonoco Products	US\$ 56.99	B-1-7

Source: BofA Global Research

Price objective basis & risk**Graphic Packaging (GPK)**

Our \$31 PO is based on the average of (a) an EV/EBITDA valuation calculated by applying a 8x 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 15x 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 \$81 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 \$42 price objective is based on an average of (a) an EPS forecast of \$2.70 in 2025E 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 \$202 price objective is based on an average of (a) an EPS forecast of \$8.50 in 2024E and a P/E of 20x, in line with peer multiples, (b) a normalized free cash flow (FCF) estimate of \$800mn, a calculated cost of equity of 8% 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 \$64 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.

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.

Special Disclosures

BofA Securities is currently acting as Financial Advisor to Graphic Packaging Holding Company in connection with its proposed sale of Augusta Paperboard Manufacturing Facility to Clearwater Paper Corporation, which was announced on 20 February 2024.

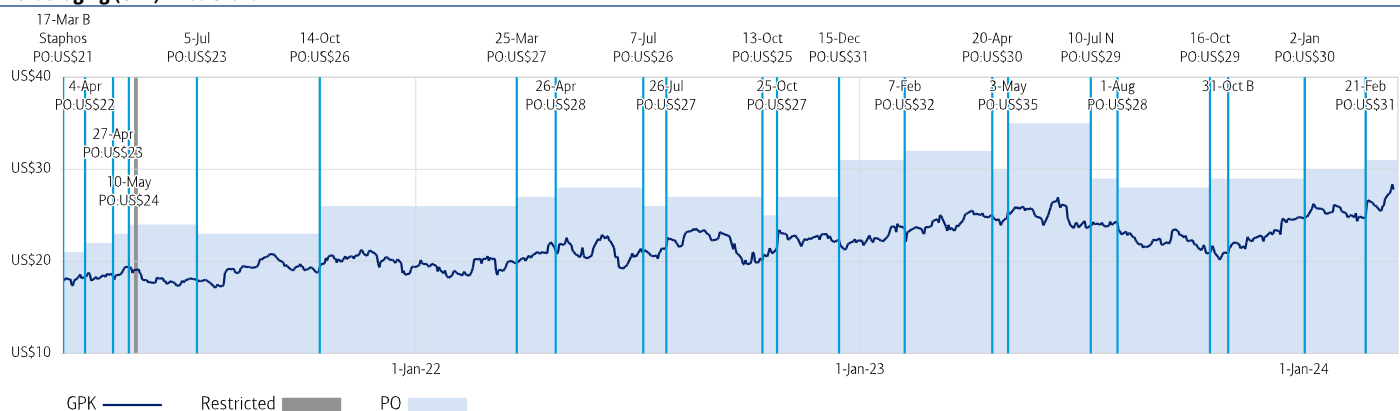
US - Paper and Packaging Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	AptarGroup Inc.	ATR	ATR US	George L. Staphos
	Ball Corp.	BALL	BALL 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
	International Paper Co.	IP	IP US	George L. Staphos
	O-I Glass Inc	OI	OI US	George L. Staphos
	Packaging Corp. of America	PKG	PKG 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
	PotlatchDeltic Corp.	PCH	PCH US	George L. Staphos
UNDERPERFORM				
	Amcor Plc	AMCCF	AMC AU	George L. Staphos
	Amcor PLC	AMCR	AMCR US	George L. Staphos
	Avery Dennison Corp.	AVY	AVY US	George L. Staphos
	Boise Cascade Company	BCC	BCC US	George L. Staphos
	Louisiana-Pacific Corp.	LPX	LPX US	George L. Staphos

Disclosures

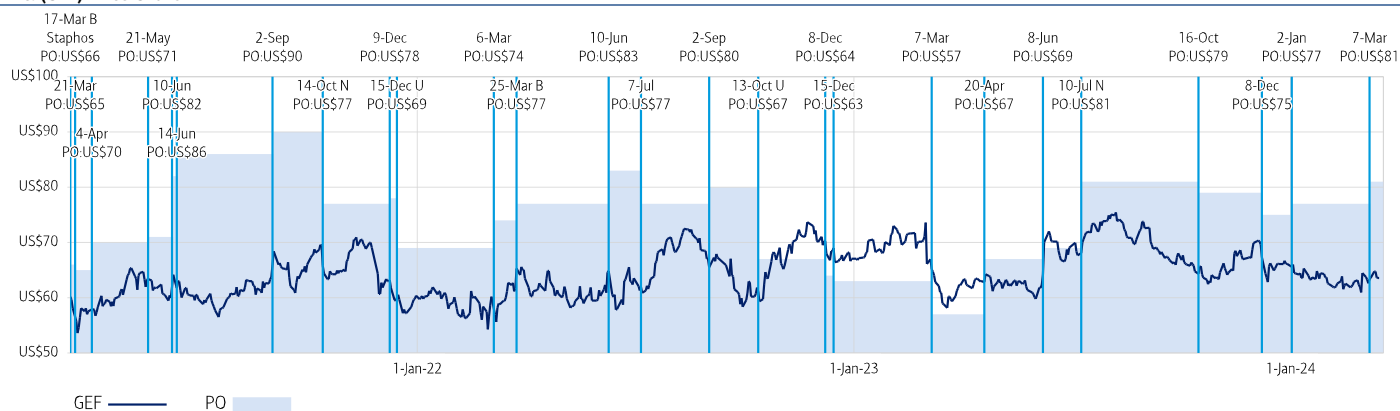
Important Disclosures

GraphicPackaging (GPK) Price Chart



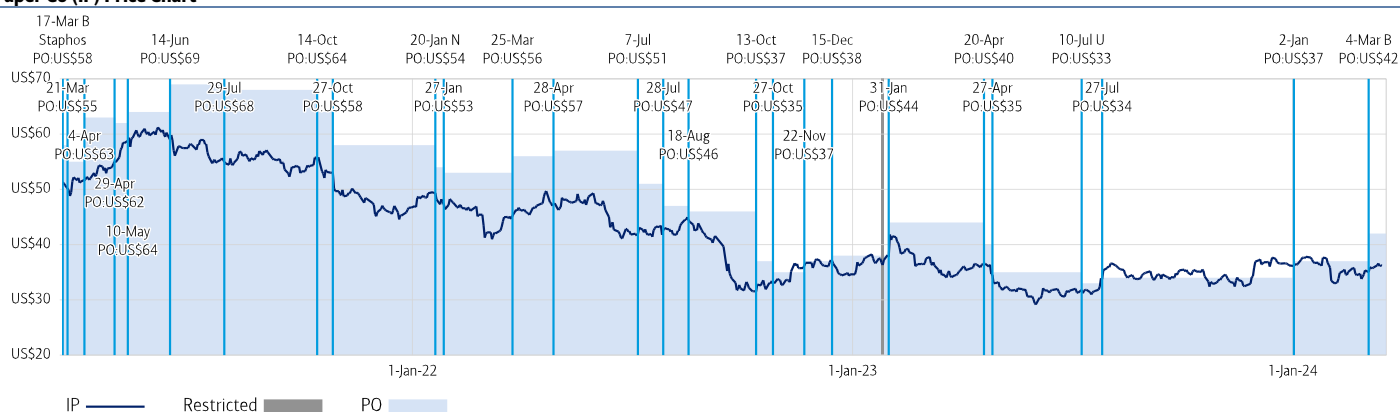
B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

Greif Inc. (GEF) Price Chart

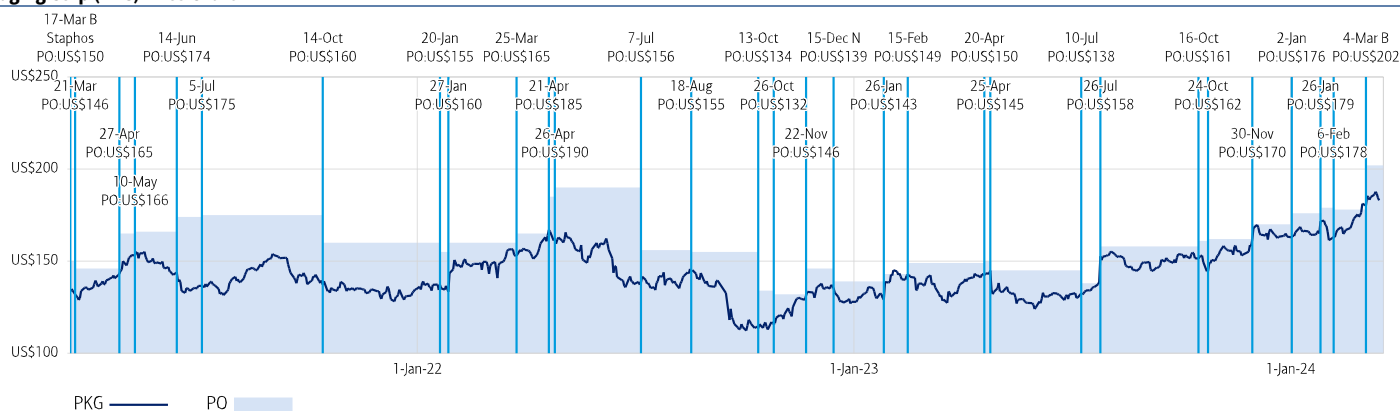
B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

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Intl Paper Co (IP) Price Chart

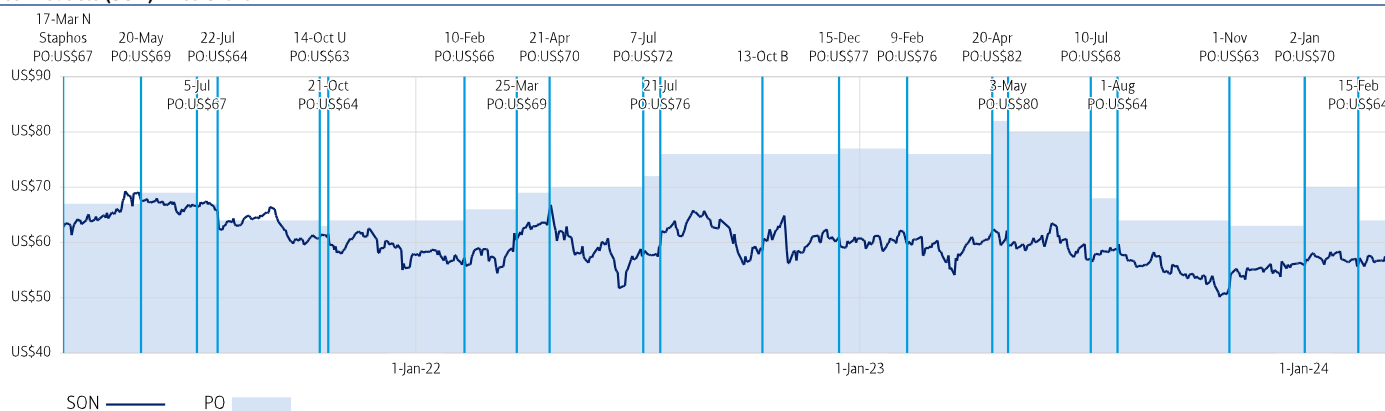
B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

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Packaging Corp (PKG) Price Chart

B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

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Sonoco Products (SON) Price Chart

B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

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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}
Buy	≥ 10%	≤ 70%
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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