

## The Paper Chase

### January 2009: Caustic Still High but Relief Could Be on the Way

The paper and forest products sector got off to a rough start in 2009, declining 15% in January and underperforming the S&P 500 by 12%. The sector fared reasonably well versus its broadest universe of cyclical peers, underperforming the Morgan Stanley Cyclical Index by 120bp during the month, but trailed the S&P Chemicals and Metals and Mining indices by 13% and 14%, respectively.

- Caustic soda prices set to decline.** This month we take a closer look at the outlook for caustic soda prices, which after doubling in 2008 we think could be poised to decline over the coming months. Specifically, chemical market advisory service *Chemical Market Associates* (CMAI) expects average acquisition prices for U.S. caustic soda to decline 30% vs. the 4Q08 peak by the end of 2009 and continue on a downtrend throughout 2010. While contractual agreements could limit the initial impact of falling caustic prices, we think lower chemical (specifically caustic) prices could be a larger tailwind to earnings in the back half of 2009 and into 2010 than we currently have factored into our models, as we have built in almost no relief from lower chemical costs.
- 4Q08 earnings weak as expected.** Paper and forest products sector earnings have been rolling in over the past three weeks and, as anticipated, earnings quality has been poor and outlook has been limited and uniformly cautious. Encouragingly, producers appear to be taking a “by all means necessary” approach to supporting prices, including taking a record amount of downtime; however, it remains to be seen how paper and paperboard demand will respond to upcoming economic stimuli and we have a relatively low degree of conviction in our FY09-10 volume forecasts.
- We have Overweight ratings on RKT, MWV, UFS, KAI, UPM1V, and STERV.**

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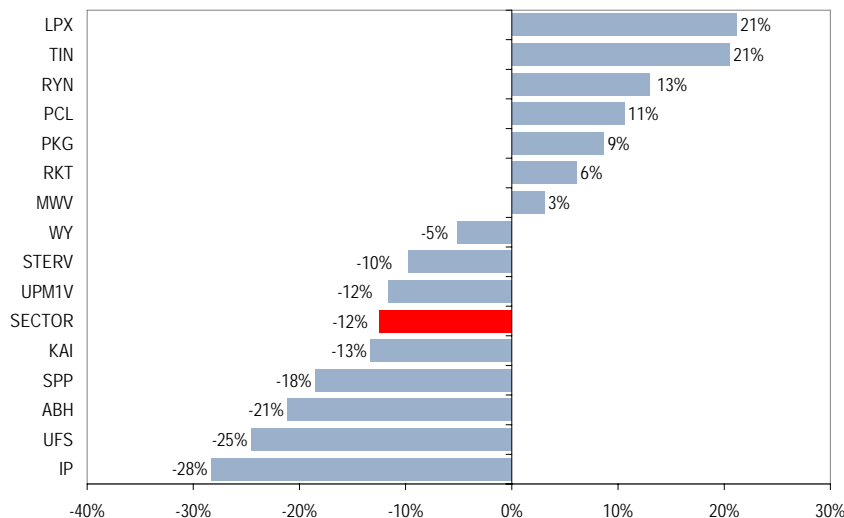
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Figure 1: Sector Performance Relative to the S&P 500 (2/09/09)



Source: Factset.

#### See page 17 for analyst certification and important disclosures.

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## Investment Thesis

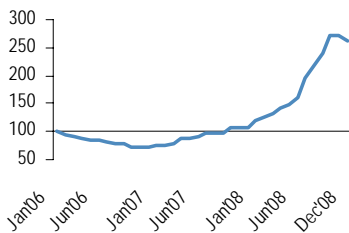
### Caustic Prices Set to Decline Through 2010

1H09 may not be all bad news for the industry, as paper and paperboard producers could begin feeling the tailwind from lower caustic soda prices as we move through the year. We have incorporated very little relief from elevated chemical costs in our earnings models; however, widespread pulp and paper mill curtailments, coupled with lower operating rates at U.S. alumina refineries and a potential caustic import/export imbalance, could drive caustic supplies up and prices sharply lower in the coming months. Indeed, chemical market advisory service *Chemical Market Associates* (CMAI) expects average acquisition prices for U.S. caustic soda to decline 30% vs. the 4Q08 peak by the end of 2009 and continue on a downtrend throughout 2010.

Caustic is used in a variety of papermaking processes, including bleached board, coated and uncoated printing and writing paper, and specialty pulp. As such, lower caustic soda prices could ease cost pressures on the larger consumers of caustic within the paper & forest products industry. Key users of caustic include IP, UFS, MWV, RYN, and VRS.

- Rapid price escalation exacerbated by housing downturn.** Caustic soda prices more than doubled in 2008 following a 45% increase in 2007 (see Figure 2 and Figure 3). The sharp upswing in caustic prices was primarily driven by supply constraints, as chemical plants curtailed production of chlorine (a caustic soda co-product and key component in PVC pipe production) in response to the sharp falloff in new housing construction.

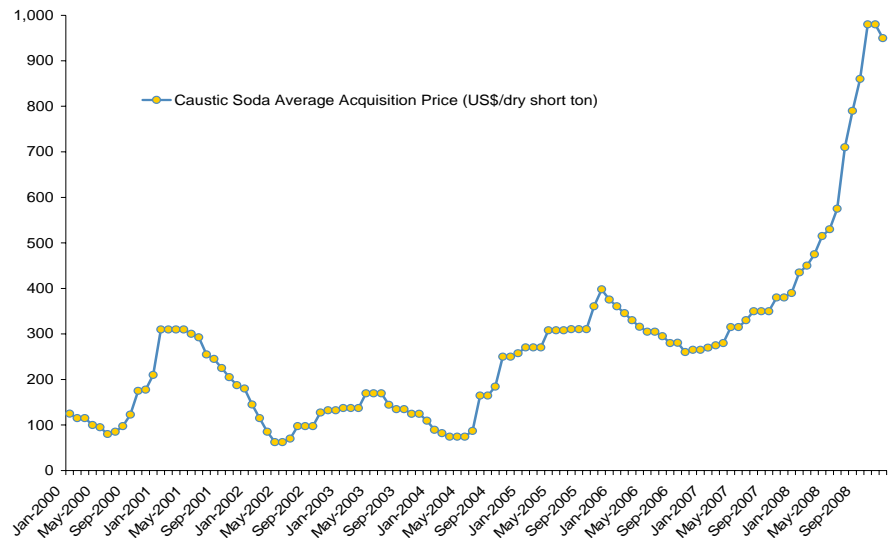
Figure 2: Average Caustic Soda Prices  
 Indexed (Jan-06=100)



Source: CMAI and J.P. Morgan estimates.

Figure 3: Historical Caustic Soda Average Acquisition Price

US\$ per dry short ton

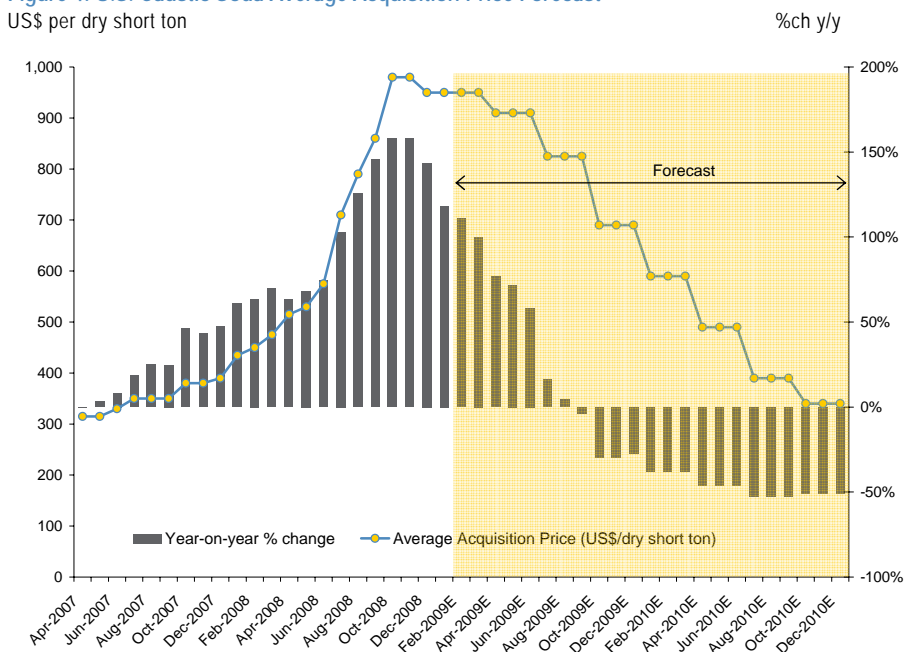


Source: CMAI.

- Demand-side pressures could drive caustic prices lower in 2009-10.** The global pulp and paper industry is the largest user of caustic soda worldwide, accounting for just under 20% of caustic consumption. Pulp and paper mills took

a record amount of downtime in 4Q (we estimate between 15% and 30% of industry capacity was curtailed during December) and many of those machines have remained idle through the beginning of 2009. Moreover, alumina refineries (~10% of caustic consumption) have also announced increased downtime beginning in late 4Q and spilling into 1Q09. Against this backdrop, and given the potential for an increase in lower-priced caustic imports, CMAI expects caustic prices to decline modestly in 1H09 (~\$40/dry short ton) with price erosion gaining momentum midyear. At this stage, CMAI is forecasting a continued deterioration in caustic soda prices throughout 2010 (see Figure 4).

Figure 4: U.S. Caustic Soda Average Acquisition Price Forecast



Source: CMAI.

- Tailwind for paper and paperboard producers.** Caustic soda is used in pulping and bleaching applications and to de-ink recovered paper, and while caustic usage varies by end product, we estimate that on a nominal basis caustic makes up the bulk of a company's chemical spend (chemicals can range anywhere from 5%-20% of cash production costs). Most companies purchase caustic under contract; however, we expect contract prices to adjust downward and companies to begin benefiting from sequential cost relief. While we maintain our negative bias toward the paper & forest products sector, we'd note that lower chemical prices are not in our EPS forecasts and could provide some modest upside to earnings.
- Key consumers of caustic soda within the paper sector include IP, UFS, MWV, RYN, and VRS.**

### Stay Selective Amid Weakness; We Favor RKT and MWV

We believe Rock-Tenn is well positioned to outperform its sector peers owing to its exposure to relatively more defensive food and beverage end markets. Specifically, 69% of the company's folding carton customer base is comprised of food or food-related companies (15% cookies and snacks, 14% frozen food, 10% dairy, 10% quick serve, 8% dry foods, and 12% other). Moreover, we are attracted to RKT's

consistently strong FCF generation (RKT's FCF yield is 18% in FY09E), low-cost assets, and quick de-levering process, and think the steep decline in OCC costs and potential falloff in caustic prices (RKT uses caustic in its bleached board and market pulp business) could provide a nice tailwind to RKT's earnings and cash flow.

Similarly, we would steer those investors seeking an attractive (and we think safe) dividend yield and defensive end-market exposure to Overweight-rated MeadWestvaco, as we think the company's strong FCF, healthy balance sheet, robust 8% dividend yield, and timberland ownership should provide good downside support. Similar to RKT, MWV uses caustic soda in its bleached board operations and should also be a beneficiary of lower caustic prices.

Elsewhere, we have Overweight ratings on STERV, UPM1V, KAI, and UFS.

### Risks to Our Sector Investment Thesis

The largest bullish risk to our thesis would be if the broader economic backdrop were to significantly improve or input costs take another meaningful leg down, which would likely result in margin improvement and upside risk to our current earnings forecasts. Conversely, if macro conditions fail to improve in late 2009 and early 2010, then our volume assumptions could prove too optimistic, margins could become further compressed, and earnings could suffer. In addition, if housing fundamentals were to improve from current depressed levels in 2009, there could be upside to our earnings estimates for the wood products producers.

## Stock Picks

**Bleached board markets have held in surprisingly well amid sharp declines in demand for other paperboard grades.**

### **Rock-Tenn (RKT/Price: \$31.41/Overweight/Price Target: \$48.00)**

With nearly 70% of RKT's consumer packaging end markets directly related to the food industry, we believe demand should hold up relatively well versus other paperboard grades through the current economic downturn. Moreover, RKT is well positioned versus its peers to benefit from declining input costs (namely OCC and natural gas) and we reiterate our Overweight rating on the stock.

[Click here](#) to view our most recently published note on RKT.

**We expect Domtar to continue taking significant downtime through 1Q09.**

### **Domtar (UFS/Price: \$1.39/Overweight)**

Domtar's 4Q operating result was disappointing, reflecting very weak demand and high costs associated with market-related downtime. While the operating environment in uncoated freesheet and pulp remains challenging, for those investors with a higher risk tolerance, we think relative stable uncoated freesheet prices, Domtar's strong free cash flow, and strict focus on debt reduction present an attractive risk/reward opportunity. We maintain our Overweight rating.

[Click here](#) to view our most recently published note on UFS.

**KAI is scheduled to report 4Q08 results after the market closes on February 18.**

### **Kadant (KAI/Price: \$10.66/Overweight/Price Target: \$18.00)**

An increasing number of machine cancellations in Asia bode poorly for stock-preparation equipment demand in 2009; however, KAI's large base of installed capacity should provide a stable, albeit smaller, source of higher-margin recurring revenue. We are further attracted to KAI's active share repurchase program and solid cash position, and we maintain our Overweight rating on the stock.

[Click here](#) to view our most recently published note on KAI.

**Greater savings from MWV's \$250-300mm cost-reduction plan could drive upside to our EPS forecasts.**

### **MeadWestvaco (MWV/Price: \$11.99/Overweight/Price Target: \$17.00)**

We think MWV's exposure to beverage and consumer packaging positions it well versus its peers in the current economic downturn and we have been encouraged by the speed at which MWV is working to right-size its cost base. MWV's balance sheet is healthy, cash flow remains robust, and the dividend (currently yielding 8%), which we view as safe, should provide downside support. We maintain our Overweight rating on MWV.

[Click here](#) to view our most recently published note on MWV.

**Stora Enso is renewing supply contracts at higher prices, particularly for newsprint in Europe.**

### **Stora Enso (STERV/Price: €4.75/Overweight/Price Target: €6.00)**

Stora Enso plans to take substantial production curtailments in early 2009 to help keep European paper markets in balance and support pricing. While prices are indeed moving higher, the increased downtime will likely keep pressure on Stora Enso's results in the near term. Nevertheless, we maintain our Overweight rating on Stora Enso given the company's strong cash flow (the company trimmed its '09 capex guidance to €500mm), healthy balance sheet, and potential to benefit from consolidation within the European paper sector.

[Click here](#) to view our most recently published note on STERV.

**Higher paper prices should help offset softer demand and the recent weakening in the euro is a positive.**

### **UPM-Kymmene (UPM1V/Price: €7.54/Overweight/Price Target: €10.00)**

Similar to Stora Enso, UPM should begin benefiting from higher European paper prices (newsprint and magazine paper in particular); however, sharply lower pulp and energy prices should be near-term headwinds. We believe UPM is well positioned to generate above-average cash flow and feel comfortable with our Overweight rating.

[Click here](#) to view our most recently published note on UPM1V.

**Despite near-term earnings pressure IP's cash flow remains robust.**

**International Paper (IP/Price: \$8.12/Neutral/Price Target: \$12.00)**

IP took nearly 1mm tons of production downtime throughout its mill system in 4Q08 and we expect significant downtime to continue through 1Q09, as demand has yet to show much improvement. We remain attracted to IP's strong FCF generation; however, given heightened macroeconomic uncertainty and the high recurring cost of downtime, we recommend investors remain on the sideline and think our Neutral rating is appropriate.

[Click here](#) to view our most recently published note on IP.

**PKG is not seeing the same degree of cost relief from lower OCC prices as are its recycled-based peers.**

**Packaging Corp. of America (PKG/Price: \$14.62/Neutral/Price Target: \$16.50)**

We view PKG as among the higher-quality companies in our coverage universe and remain attracted to the company's sound balance sheet and strong FCF. However, with the recent decline in OCC and natural gas prices, PKG is not seeing the same cost advantages relative to its recycled-based containerboard peers, which, coupled with limited earnings visibility and broader macro uncertainty, leaves us comfortable with our Neutral rating.

[Click here](#) to view our most recently published note on PKG.

**PCL noted that rural timberland values are coming under pressure, particularly at the high end of the market.**

**Plum Creek Timber (PCL/Price: \$33.75/Neutral/Price Target: \$36.00)**

We reduced our harvest volume projections for PCL following the company's 4Q earnings release to reflect deteriorating log demand and pricing (specifically for pulpwood). While we continue to view timberland as an attractive long-term investment, our near-term enthusiasm for PCL stock is tempered by weak earnings in the company's core timber business and a lack of visible catalysts. We maintain a Neutral rating on PCL.

[Click here](#) to view our most recently published note on PCL.

**RYN expects prices for its specialty cellulose to be up ~15% in 2009.**

**Rayonier (RYN/Price: \$32.08/Neutral/Price Target: \$35.00)**

We remain attracted to RYN's diversified business mix, large timber asset base, and the solid cash-flow generation in performance fibers. However, given continued deterioration in log markets, declining fluff pulp prices, and an expected slowdown in timberland transactions in 2009, we feel comfortable on the sideline and maintain our Neutral rating on RYN.

[Click here](#) to view our most recently published note on RYN.

**Coated paper demand plunged again in December.**

**Sappi (SPP/Price: \$3.20/Neutral)**

Coated paper demand took another leg down in December on the back of a sharp retrenchment in advertising spending. Despite this stiff demand headwind, which isn't likely to abate until the broader economy improves, we think SPP is making the right moves to manage its capacity and remove costs where it can. We think SPP should be able to realize synergies from the M-real acquisition, but until we get more visibility into demand trends, we feel comfortable with our Neutral rating.

[Click here](#) to view our most recently published note on SPP.

**TIN reiterated its commitment to returning cash to shareholders through its dividend.**

**Temple-Inland (TIN/Price: \$5.71/Neutral)**

TIN has done a good job, in our view, removing costs from its containerboard and corrugated packaging business amid very weak end-market demand. Cost improvement notwithstanding, we think earnings visibility remains limited for both corrugated packaging and especially building products, and we feel comfortable with our Neutral rating.

[Click here](#) to view our most recently published note on TIN.

**Coated paper shipments tumbled 10.2% in 2008.**

**Verso Paper (VRS/Price: \$0.70/Neutral)**

We were surprised by the magnitude of the falloff in coated paper shipments in December, with volumes off nearly 30% year on year, and we expect Verso to incur significant downtime-related costs as it works to balance supply with demand. Nevertheless, FCF should remain reasonably healthy and we think our Neutral rating is appropriate.

[Click here](#) to view our most recently published note on VRS.

**Moody's placed WY on watch for potential downgrade.**

**Weyerhaeuser (WY/Price: \$28.67/Neutral/Price Target: \$32.00)**

On the one hand, conditions in WY's core markets – building products, cellulose fibers, and real estate – continue to deteriorate with no sign of a recovery in sight. On the other hand, however, WY owns over 6mm acres of timberland that we feel provide a good degree of downside support. Balancing poor near-term market fundamentals with the value embedded in WY's timberland holdings, we feel comfortable with our Neutral rating.

[Click here](#) to view our most recently published note on WY.

**ABH plans to take 100,000-125,000 tonnes of newsprint downtime in 1Q09.**

**AbitibiBowater (ABH/Price: \$0.72/Underweight)**

ABH reduced its 4Q08 EBIT guidance (ex-items) to \$52-\$62mm from the \$65-\$95mm range it guided to in December, likely reflecting weaker pricing and increased downtime-related costs. While the refinancing at the Bowater subsidiary should buy the company some breathing room, liquidity at the Abitibi sub remains severely constrained and we are maintaining our Underweight rating.

[Click here](#) to view our most recently published note on ABH.

**OSB prices continue to bounce along at low levels.**

**Louisiana-Pacific (LPX/Price: \$2.33/Underweight)**

Our Underweight rating on LPX reflects a very weak demand backdrop that appears unresponsive to materially higher OSB pricing, which will likely delay any earnings recovery for LPX. Moreover, given the company's weak cash flow profile, we think LPX could face a serious cash crunch in early 2009 and we feel comfortable with our Underweight rating.

[Click here](#) to view our most recently published note on LPX.

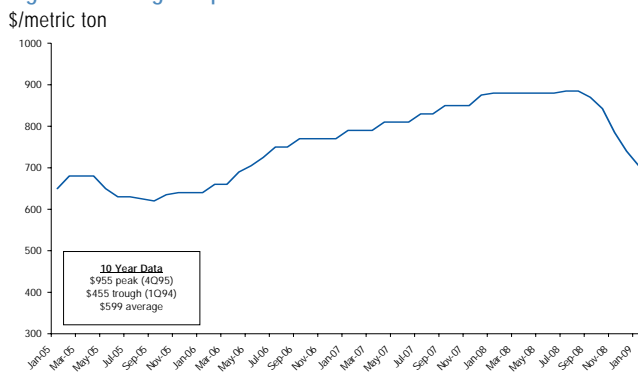
*Please see the most recent company-specific research report on each of the above-mentioned names for an analysis of valuation methodologies and risks for each of the securities.*

## Pulp

Global pulp shipments declined 4.8% y/y to 3.44 million tonnes in December but were broadly flat versus five-year historical average levels. Inventories, as measured by days of supply, declined 4 days month on month to 46 days, with softwood days of supply down 1 day to 40 days, while hardwood inventories dropped to 53 days from 60 days. By destination, pulp shipments to North America declined 13.5% y/y, while shipments to China increased 53.4%.

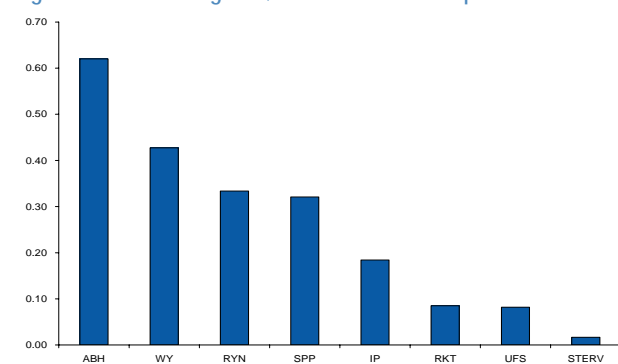
NBSK list prices declined \$35 (5%) to \$705/tonne in January, reflecting weaker pulp demand and still-elevated producer inventories. While producers have announced significant pulp market downtime, we think high inventories, coupled with a sharp falloff in demand, will continue to place downward pressure on prices through 1Q09. **Companies with exposure to pulp price movements (ranked by EPS leverage) are ABH, WY, RYN, SPP, and IP.**

Figure 5: Average Pulp Prices



Source: Pulp & Paper Week, and J.P. Morgan.

Figure 6: EPS Leverage to \$50 Price Move in Pulp



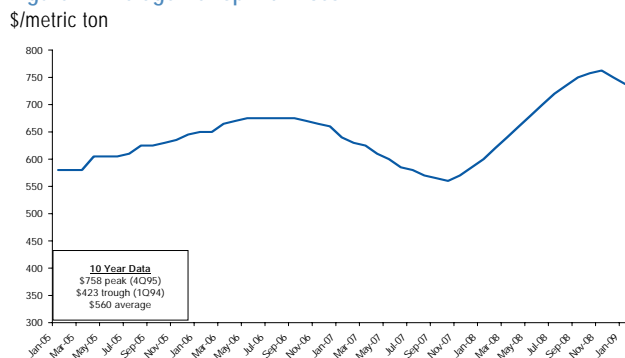
Source: Company reports and J.P. Morgan calculations.

## Newsprint

North American newsprint shipments declined 5.6% y/y in December, as a 28.3% increase in exports only partially offset a 13.8% decline in shipments to North America. Consumption by US daily newspapers tumbled 23.5% y/y in December, while total North American newsprint demand declined 13.5% compared to the prior year. Inventories decreased 16,000 tonnes m/m in December, which was broadly in line with the historical average decline of 17,000 tonnes.

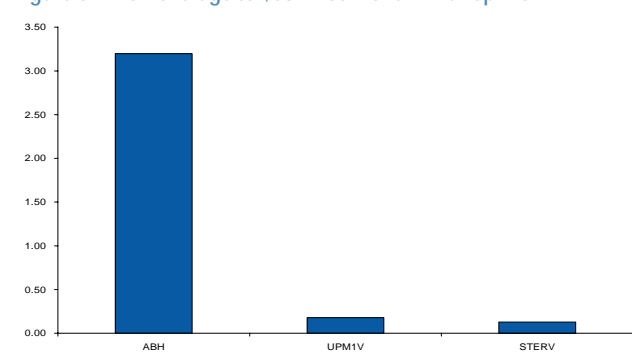
Prices for benchmark 30-lb newsprint decreased \$10-15 (1-2%) in January to \$755/tonne on the East Coast and \$720/tonne on the West Coast. The East/West price differential widened to a record \$35/tonne in January as oversupply and reports of increased imports on the West Coast drove down prices in that market. We currently expect a further ~\$25/tonne in newsprint price declines in 1H09. **Companies exposed to newsprint prices (ranked by EPS leverage) are ABH, UPM1V, and STERV.**

Figure 7: Average Newsprint Prices



Source: Pulp & Paper Week, and J.P. Morgan.

Figure 8: EPS Leverage to \$50 Price Move in Newsprint



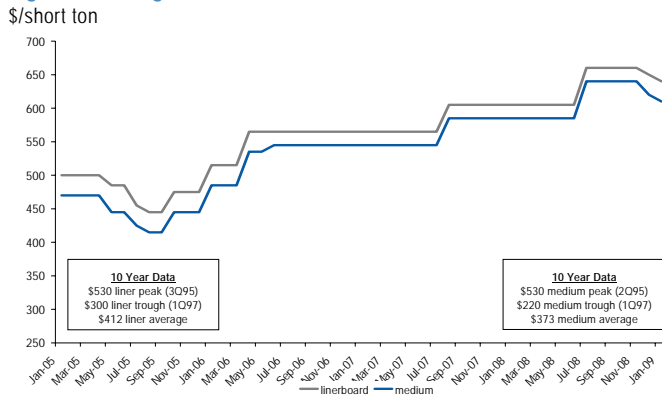
Source: Company reports and J.P. Morgan calculations.

## Containerboard

Box shipments plunged 16.3% y/y in December (on an average week basis) and were down 7.0% on an absolute basis. Combined inventories at containerboard mills and box plants declined 83,000 tons m/m in December, which compared favorably to the historical average decline of 25,000 tons. Inventories at box plants declined 57,000 tons (2.5%) month on month, while mill inventories decreased 26,000 tons (6.9%) month on month in December.

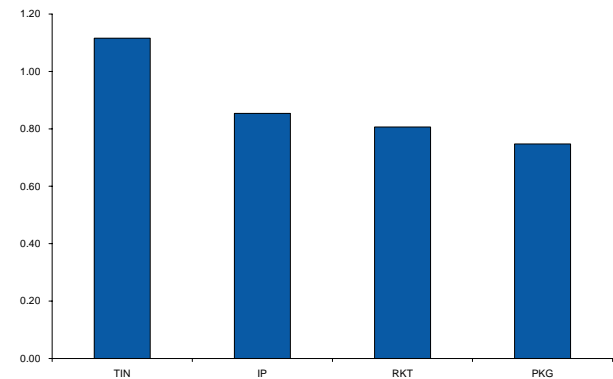
Containerboard prices declined in January, with list prices for linerboard and medium down \$10 (2%) to \$640/ton and \$610/ton, respectively, reflecting weak domestic box demand and soft export shipments. **Key containerboard producers (ranked by EPS leverage) are TIN, IP, RKT, and PKG.**

Figure 9: Average Containerboard Prices



Source: Pulp & Paper Week and J.P. Morgan.

Figure 10: EPS Leverage to \$50 Price Move in Containerboard



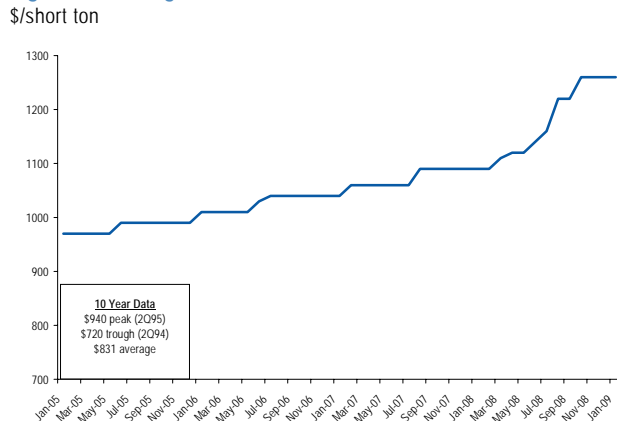
Source: Company reports and J.P. Morgan calculations.

## Boxboard

Bleached board markets remained in relatively good shape in December, amid a severe falloff in demand for other paperboard grades, with production down only 5.1% y/y to 473,000 tons, while backorders came in to 3.0 weeks of supply versus 3.6 weeks in November. The industry operating rate slipped to 92.6% in December from 94.0% in November. Recycled boxboard production, on the other hand, tumbled 17.0% y/y in December, while backorders declined 0.3 weeks to 2.5 weeks of supply.

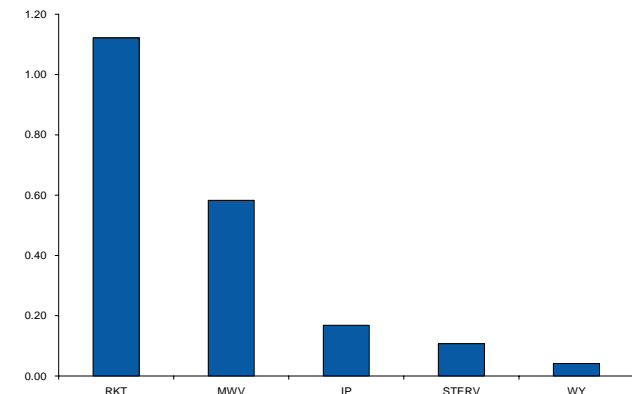
Bleached board prices remained flat at \$1,260/ton in January, as producers did a good job keeping supply and demand in balance. Elsewhere, CRB prices decreased by \$10 (1.1%) to \$925/ton, while CUK list prices slipped \$5 m/m to \$1,060/ton. **Companies with exposure to boxboard (ranked by EPS leverage) are RKT, MWV, and IP.**

Figure 11: Average Bleached Board Prices



Source: Pulp & Paper Week and J.P. Morgan.

Figure 12: EPS Leverage to \$50 Price Move in Boxboard



Source: Company reports and J.P. Morgan calculations.

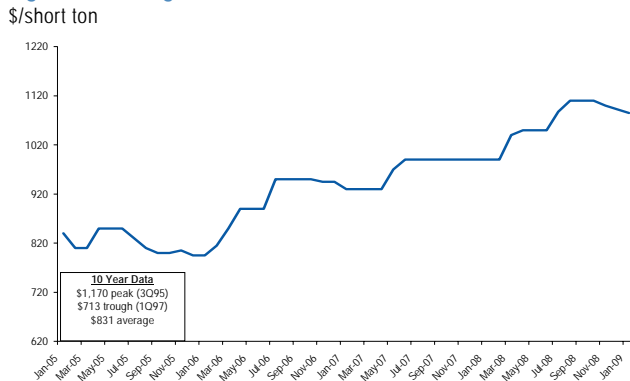
## Uncoated Freesheet

Uncoated freesheet shipments declined 12.8% y/y in December and were down 8% in 2008. Shipments of cutsize paper (~44% of the UCFS market) were down 9.3% y/y, while offset shipments (~23% of the UCFS market) declined 19.5%. Inventories decreased 27,000 tons m/m in December versus the typical 28,000-ton increase, and stood 10.7% below average levels at the end of the month.

List prices for 50-lb offset were down \$10 (1%) in January to \$920/ton, while prices for benchmark 20-lb. repro bond (cutsize) posted a small decline in January, drifting down \$8 (1%) to \$1,085/ton. Downtime has increased in response to very weak demand; however, we think more action will be necessary on the part of producers to limit further price erosion.

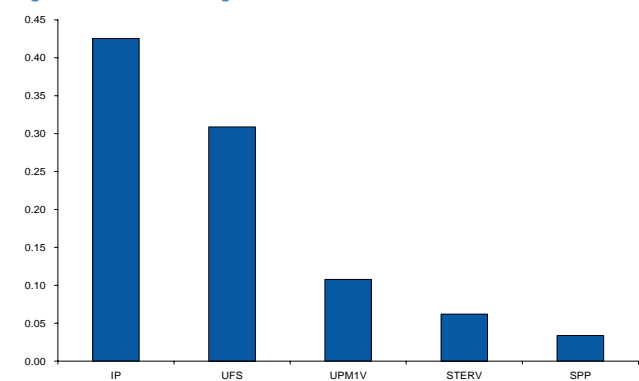
**Companies with exposure to uncoated freesheet (ranked by EPS leverage) are IP and UFS.**

Figure 13: Average Uncoated Freesheet Prices



Source: Pulp & Paper Week and J.P. Morgan. Note: Price reflects 20-lb repro bond (cut size).

Figure 14: EPS Leverage to \$50 Price Move in UCFS



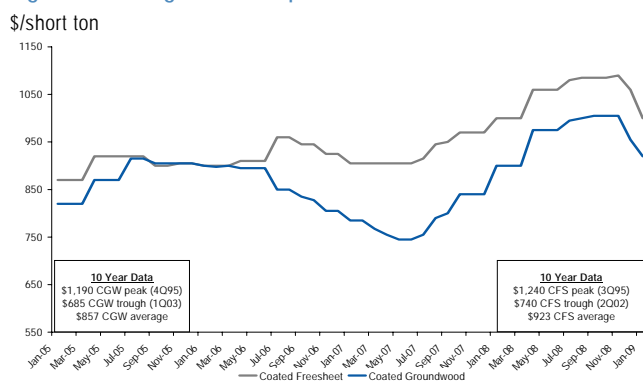
Source: Company reports and J.P. Morgan calculations.

## Coated Paper

Shipments of coated groundwood tumbled 32.7% y/y in December and were down 10.7% in 2008, while coated freesheet shipments were down 24.9% in December and off 9.7% for the full year. Coated groundwood inventories declined 30,000 tons m/m in December, versus the historical average decline of 2,000 tons, while coated freesheet inventories increased 39,000 tons versus a more “normal” 5,000-ton increase.

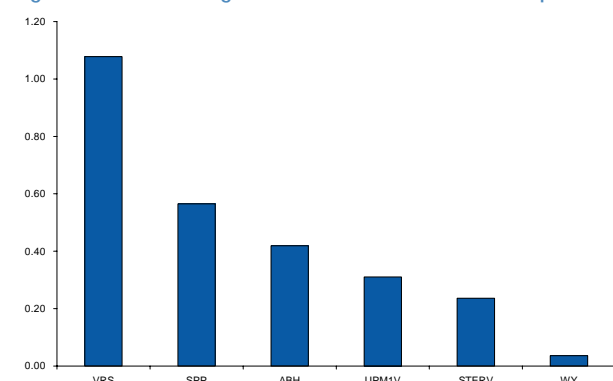
Coated paper prices declined again in January. List prices for coated freesheet (No. 3, 60-lb. rolls) declined \$60 (6%) to \$1,000/ton, while coated groundwood (No. 5, 40-lb.offset) prices were off by \$35 (4%) to \$920/ton. The magnitude of the price decline in January was more than we had been anticipating and places our FY09 coated paper price forecasts at risk to the downside. **Companies with exposure to coated paper (ranked by EPS leverage) are VRS, SPP, ABH, UPM1V, and STERV.**

Figure 15: Average Coated Paper Prices



Source: Pulp & Paper Week and J.P. Morgan. Note: Prices for 50lb No.3 and 40lb No.5 offset.

Figure 16: EPS Leverage to \$50 Price Move in Coated Paper



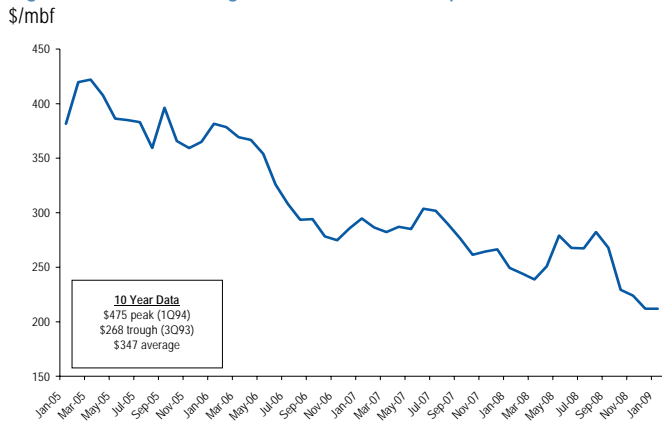
Source: Company reports and J.P. Morgan calculations.

## Lumber

Lumber prices continued to decline in January on the back of dismal demand trends. The Random Lengths framing lumber index declined an average of \$16 (8%) in January and averaged \$196/mbf for the month, which was 44.0% below 10-year average historical price levels and 34.2% below the last trough (\$298/mbf in 3Q93). In absolute terms, the framing lumber index decreased \$17 (9%) and ended the month at \$190/mbf.

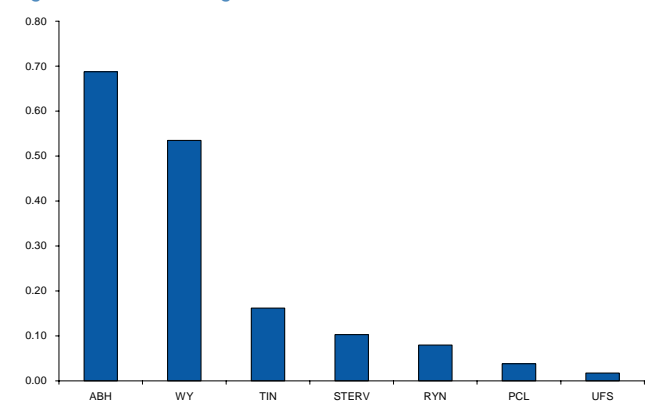
Housing starts declined 15.5% in December to an annual rate of 550,000. The more closely watched single-family starts declined 13.5% to 398,000, while the volatile multifamily category declined 20.4%. Building permits issued – often a leading indicator of new housing starts – tumbled 10.7% to 549,000 annualized units in December. **Companies with exposure to lumber (ranked by EPS leverage) are ABH, WY, TIN, STERV, RYN, and PCL.**

Figure 17: Random Lengths Lumber Price Composite



Source: Random Lengths and J.P. Morgan.

Figure 18: EPS Leverage to \$25 Price Move in Lumber



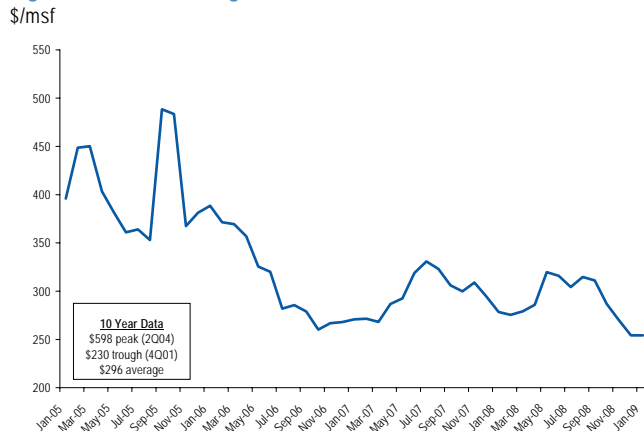
Source: Company reports and J.P. Morgan calculations.

## Structural Panels

Structural panel prices remained surprisingly steady through January as increased curtailment activity helped to offset weak demand. The Random Lengths structural panel composite declined \$3 (1%) in January and averaged \$251/msf for the month. In absolute terms, the structural panel composite index increased \$1 (0.3%) and ended the month at \$252/msf.

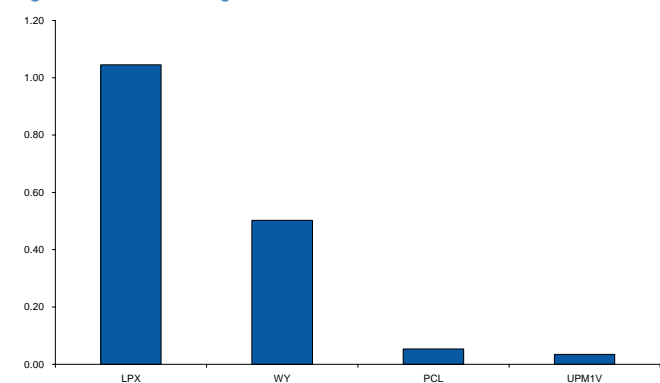
Prices for benchmark 7/16-inch OSB decreased \$3 (2%) m/m to finish January at \$150/msf, while southern plywood prices increased \$10 (4%) m/m to finish January at \$253/msf. We continue to expect overall structural panel demand to remain weak and prices depressed through 2009 on the back of continued housing market weakness. **Companies with exposure to panel prices (ranked by EPS leverage) are LPX and WY.**

Figure 19: Random Lengths Structural Panel Index



Source: Random Lengths and J.P. Morgan.

Figure 20: EPS Leverage to \$25 Price Move in Structural Panels



Source: Company reports and J.P. Morgan calculations.

## Paper Sector—Price Performance and Evaluation

The paper and forest products sector turned in another weak performance in January, declining 15% in absolute terms and underperforming the S&P 500 by 12%. The outperformers in January were Louisiana-Pacific, Temple-Inland, and Rayonier, while the laggards were IP, Domtar, and AbitibiBowater.

We maintain our cautious stance on the group and do not view sector valuation as overly compelling. On our 2009 estimates, the paper group (excluding timber REITs and building products companies) is trading at a market-cap weighted average of 5.9 times EBITDA. The global paper and forest products sector is trading on a 2009E EV/EBITDA multiple of 6.6x, which compares to historical peak EV/EBITDA multiples of 4.0x-6.0x and historical average mid-cycle multiples of 7.0x-8.0x.

Table 1: Paper and Forest Products Performance

Ticker	Price	52-week		% Change				% Change in 2008	
		High	Low	1 Mth.	3 Mths.	6 Mths.	YTD		
AbitibiBowater	ABH	0.72	23.85	0.24	-23.4%	-60.4%	-90.6%	53.2%	-97.7%
Domtar	UFS	1.39	7.94	1.01	-26.8%	-40.1%	-76.6%	-16.8%	-78.3%
International Paper	IP	8.12	33.77	7.60	-30.6%	-45.4%	-72.0%	-31.2%	-63.6%
Kadant	KAI	10.66	30.87	9.19	-15.6%	-33.3%	-54.2%	-20.9%	-54.6%
Louisiana-Pacific	LPX	2.33	13.55	1.40	18.9%	5.9%	-74.6%	49.4%	-88.6%
MeadWestvaco	MWV	11.99	29.40	9.44	0.8%	-10.3%	-55.3%	7.1%	-64.2%
Packaging Corp.	PKG	14.62	26.99	10.95	8.3%	-4.7%	-40.9%	8.6%	-52.3%
Plum Creek	PCL	33.75	60.00	27.33	6.4%	-4.1%	-32.3%	-2.8%	-24.5%
Rayonier	RYN	32.08	49.54	26.25	10.7%	0.4%	-31.8%	2.3%	-33.6%
Rock-Tenn	RKT	31.41	46.37	23.87	3.8%	-4.0%	-14.1%	-8.1%	34.5%
Sappi	SPP	3.20	15.45	2.75	-20.8%	-46.8%	-72.9%	-18.2%	-72.9%
Temple-Inland	TIN	5.71	20.49	2.34	18.2%	4.0%	-66.2%	19.0%	-77.0%
Verso Paper	VRS	0.70	12.01	0.61	-29.3%	-59.1%	-87.2%	-32.0%	-91.4%
Weyerhaeuser	WY	28.67	68.65	25.30	-7.5%	-12.4%	-43.3%	-6.3%	-58.5%
Stora Enso	STERV-HEL	€ 4.75	€ 9.13	€ 4.39	-12.0%	-37.5%	-34.8%	-13.9%	-46.1%
UPM-Kymmene	UPM1V-HEL	€ 7.54	€ 13.55	€ 7.04	-13.9%	-33.9%	-36.9%	-16.2%	-32.9%
<b>S&amp;P Paper Forest</b>	<b>SP113-SPX</b>	<b>52.03</b>	<b>146.65</b>	<b>49.60</b>	<b>-14.8%</b>	<b>-25.6%</b>	<b>-58.1%</b>	<b>-13.8%</b>	<b>-61.4%</b>
S&P 500	SPX-SPX	869.89	1,440.24	741.02	-2.3%	-6.6%	-32.9%	-3.7%	-38.5%
DJIA	DJII	8270.87	13,191.49	7,392.27	-3.8%	-7.5%	-29.5%	-5.8%	-33.8%
NASDAQ	COMP	1591.56	2,551.47	1,295.48	1.3%	-3.4%	-34.1%	0.9%	-40.5%

Source: Bloomberg and J.P. Morgan calculations.

Table 2: Paper and Forest Products Valuation

	JPM Rating	Price	Mkt. Cap. (US\$MM)	P/E (x)			EV/EBITDA (x)			Price/Book	Dividend Yield – 2010E
				2008E	2009E	2010E	2008E	2009E	2010E		
AbitibiBowater	UW	0.72	41	NM	NM	NA	9.7x	7.5x	NA	0.0x	NA
Domtar	OW	1.39	717	8.1x	NM	13.9x	3.7x	5.5x	3.8x	0.3x	0.0%
International Paper	N	8.12	3,448	4.0x	55.1x	10.9x	4.8x	5.7x	4.8x	0.6x	12.3%
Kadant	OW	10.66	144	7.1x	9.3x	NA	3.7x	3.5x	NA	0.5x	NA
Louisiana-Pacific	UW	2.33	240	NM	NM	NA	NM	NM	NA	0.1x	0.0%
MeadWestvaco	OW	11.99	2,050	18.3x	40.5x	15.0x	5.0x	5.8x	5.0x	0.7x	7.7%
Packaging Corp.	N	14.62	1,488	10.8x	17.0x	17.0x	4.8x	5.7x	5.3x	1.9x	8.2%
Plum Creek	N	33.75	5,603	24.9x	22.6x	30.2x	17.6x	17.7x	20.7x	3.7x	5.0%
Rayonier	N	32.08	2,547	15.9x	35.5x	20.7x	8.5x	10.8x	9.0x	2.5x	6.2%
Rock-Tenn	OW	31.41	1,209	13.9x	7.9x	7.9x	7.4x	5.4x	4.8x	1.9x	1.3%
Sappi	N	3.20	1,546	2.6x	NM	11.5x	3.7x	7.9x	5.7x	0.5x	5.0%
Temple-Inland	N	5.71	609	55.7x	NM	19.1x	5.4x	5.8x	4.7x	0.8x	7.0%
Verso Paper	N	0.70	36	6.6x	NM	NA	4.9x	5.4x	NA	1.1x	NA
Weyerhaeuser	N	28.67	6,058	NM	NM	NM	15.8x	NM	14.7x	1.3x	3.5%
Stora Enso	OW	€ 4.75	€ 3,746	26.4x	32.5x	16.0x	6.0x	6.8x	5.7x	0.7x	4.2%
UPM-Kymmene	OW	€ 7.54	€ 3,921	10.7x	43.5x	9.4x	4.3x	7.7x	5.3x	0.6x	4.4%
<b>U.S. Average</b>				<b>11.5x</b>	<b>32.9x</b>	<b>12.8x</b>	<b>4.9x</b>	<b>5.9x</b>	<b>4.9x</b>	<b>0.9x</b>	<b>7.5%</b>
<b>Global Average</b>				<b>14.7x</b>	<b>35.3x</b>	<b>12.7x</b>	<b>5.0x</b>	<b>6.6x</b>	<b>5.2x</b>	<b>0.8x</b>	<b>6.0%</b>

Source: Company reports and J.P. Morgan estimates. Note: JPMorgan ratings: OW = Overweight; N = Neutral; UW = Underweight. RKT and SPP's fiscal years end in September.

## January 2008 News Highlights

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### U.S. Recovered Paper Exports Tumble in November

Export shipments of recovered paper tumbled in November, with total recovered paper exports down ~20% month on month and off 28% versus July 2008 levels, according to data compiled by the AF&PA, U.S. Census Bureau and Department of Commerce. Looking at specific destinations, exports to China (the largest export market for U.S. recovered paper) and Canada each declined 28% versus July levels to 750,000 tons and 134,000 tons, respectively. Shipments to Mexico declined 24% versus July, while export volumes to India were down a more modest 17%.

**Nearly 60% of U.S. recovered paper exports go to China.**

The falloff in exported tonnage comes amid steep price declines in both the domestic market and key export markets that began in earnest in 3Q and accelerated through the end of 2008, with domestic OCC prices posting a July-December price decline of \$92/ton (76%) and export prices off \$125/ton (76%) during the same period. Through January, OCC prices have declined \$121/ton (81%) versus their March 2008 peak. Key OCC consumers in the U.S. include IP, RKT, TIN, and SON.

### Containerboard Capacity Continues to Sit Idle

Key North American containerboard producers IP and Smurfit extended major capacity outages at their mills into the month of February. Specifically, Smurfit has extended shuts at its mills in Ontonagon, MI (275,000 tons/year), Matane, Quebec (165,000 tons/year), and on a smaller machine at its large Missoula, MT (600,000 tons/year) linerboard mill, which has been idled since early November. IP recently commenced a six-week shutdown of its 400,000 tons/year Pineville, LA, kraft linerboard mill after shuttering the facility for two weeks around Christmas. Recall IP took roughly 700,000 tons of downtime in its containerboard mill system in 4Q08 and, unless incoming demand-side data show a surprising reversal in box shipment trends, we expect IP to take a similar amount of downtime in 1Q09 and do not foresee near-term material improvement in the industry containerboard operating rate (the industry operated at an average operating rate in the low 80s in 4Q08).

**A record percentage of U.S. containerboard capacity is currently idled in response to very weak demand.**

### Domtar to Permanently Close PM at Plymouth, NC

Domtar announced on February 5 that it planned to close one of two paper machines at its mill in Plymouth, North Carolina, by the end of February (the Plymouth mill is a legacy Weyerhaeuser facility). The machine (the larger of the two at the mill) currently produces 293,000 tons/year of commodity uncoated freesheet and represents roughly 2% of annual North American capacity. Following the machine closure the mill will have one remaining paper machine with annual capacity of 200,000 tons of uncoated freesheet and will operate two pulp lines and one pulp dryer, presumably increasing the mill's net market pulp position.

**Domtar plans to permanently close a 293,000 tons/year UCFS machine at its Plymouth mill by the end of February.**

### Graphic Packaging to Rationalize Folding Carton Capacity

On February 10 Graphic Packaging announced that it plans to permanently close three folding carton facilities in 2Q-3Q 2009. Specifically, the company's folding carton plant in Tuscaloosa, AL, will close at the end of 2Q09, while folding carton facilities in Muncie, IN, and Morris, IL, are scheduled to shutter in 3Q09. Elsewhere, Graphic Packaging announced plans to close its multiwall bag packaging facility in Cantonment, FL, by the end of 3Q09.

## Key Market Indicators

### An Expectedly Weak 4Q GDP Report Showed GDP Contracting

**Fourth quarter GDP contracted 3.8% on an annualized basis (the 4Q advance report was released January 30), which was slightly better than expectations for a 5.5% decline.** Stronger than anticipated inventory building drove the upside in the GDP report; however, the implied inventory overhang heading into the first quarter will require further production cutbacks to get sales and inventories in line. Other areas of the 4Q GDP report were expectedly weak, with real consumer spending contracting 3.5% and residential investment declining at a 23.6% rate. It's also worth noting that both the share of GDP attributable to housing (3.1%) and consumer durables (6.6%) are at all-time low.

**The Conference Board consumer confidence index fell to a new all time low of 37.7 in January**, surpassing the previous all time low of 38.6 that was set in December. The labor market details of the January report were not quite as bad as in December. The labor market differential, which is the share of respondents reporting jobs were plentiful less the share who say jobs are hard to get, rose to negative 33.9 from negative 35.0.

**Housing starts and permits plunge again in December.** Housing starts declined 15.5% in December to an annual rate of 550,000 units and permits fell 10.7% to 549,000 units. The more closely watched single-family starts declined 13.5% to 398,000 units, while the volatile multifamily category declined 20.4%.

Table 3: Key U.S. Economic Data

	Current	1Q09E	2Q09E	3Q09E	4Q09E	2009E	2010E
Global Real GDP (%cha saar)	N/A	-4.8	-0.1	1.6	2.7	-1.7	2.4
U.S. Real GDP (%cha saar)	-0.5	-5.5	-0.5	1.5	2.5	-1.8	2.5
US\$:€ Exchange Rate (end of period)	1.30	1.33	1.34	1.39	1.41	1.37	NA
US\$:C\$ Exchange Rate (end of period)	0.82	0.86	0.90	0.95	0.93	0.91	NA
WTI Crude Oil (\$/bbl)	40.94	38.00	40.00	45.00	50.00	43.25	55.00
Henry Hub Natural Gas (\$/mmbtu)	4.65	5.00	5.25	6.00	6.50	5.69	6.63
Industrial Production, mfg. (%cha saar)	-2.0	-16.0	-3.0	3.0	3.0	-3.6	4.2
Unemployment Rate	7.2	7.8	8.5	8.7	8.7	NA	NA
Housing Starts (mil units saar)	0.550	0.600	0.650	0.675	0.700	NA	NA
Federal Funds Rate	0.10	0.13	0.13	0.13	0.13	0.13	NA
10-Year Treasury Note	3.03	2.40	2.00	2.00	2.00	2.00	NA
30-Year Treasury Bond	3.74	2.85	2.40	2.40	2.40	2.40	NA

Source: J.P. Morgan Economics, except where noted.

Table 4: Key Commodity List Prices

	Current	2003	2004	2005	2006	2007	2008	2009E	2010E
Pulp (\$/metric ton)	705	553	640	647	722	824	857	681	725
UCFS (\$/short ton)	1,085	769	794	821	902	968	1,065	1,055	1,075
Newsprint (\$/metric ton)	755	503	550	610	667	593	701	737	720
Linerboard (\$/short ton, East Coast)	640	421	468	478	553	582	632	623	650

Source: *Pulp & Paper Week* and J.P. Morgan estimates.

## Looking Ahead – February/March 2009

Monday	Tuesday	Wednesday	Thursday	Friday
9-Feb	10-Feb	11-Feb	12-Feb	13-Feb
	Preliminary P&W Statistics			Wood Price Statistics
16-Feb	17-Feb	18-Feb	19-Feb	20-Feb
Presidents' Day Markets Closed	Containerboard and Box Data Preliminary Release Date	Housing starts (Jan) Industrial production (Jan)  FOMC minutes	PPI (Jan) Philly Fed (Feb)	Final P&W Statistics Preliminary Release Date  Wood Price Statistics
23-Feb	24-Feb	25-Feb	26-Feb	27-Feb
Newsprint Statistics Preliminary Release Date	World Pulp Statistics Preliminary Release Date			Real GDP (4Q prelim)  Wood Price Statistics
2-Mar	3-Mar	4-Mar	5-Mar	6-Mar
ISM manufacturing survey (Feb)				Wood Price Statistics  Employment report (Feb)
9-Mar	10-Mar	11-Mar	12-Mar	13-Mar
				Wood Price Statistics

Source: J.P. Morgan.

Table 5: Monthly Inventory Expectations

Date	Statistics	Historical Inventory	
		Change M/M	Companies Most Affected
17-Feb	Containerboard	+139,000 tons	IP, RKT, TIN, PKG
20-Feb	Uncoated freesheet	+3,000 tons	IP, UFS
20-Feb	Coated freesheet	+42,000 tons	VRS, STERV, UPM1V
20-Feb	Coated groundwood	-1,000 tons	ABH, VRS, UPM1V, STERV
23-Feb	Newsprint	+81,000 tonnes	ABH, UPM1V, STERV
24-Feb	World pulp	+230,000 tonnes	ABH, IP, UFS, WY

Source: Pulp & Paper Products Council, AF& PA, and J.P. Morgan.

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