

CHANGES TO PPW/OBM CONTAINERBOARD PRICES - FINAL

January 18, 2013

SUMMARY OF CHANGES FROM ORIGINAL PROPOSAL PRESENTED NOV. 5, 2012

- Postponed implementation of this plan from January 2013 to March 2013, shifting the entire timetable back by two months.
- Postponed the date when the transaction price and list price footnotes will be discontinued from Jan 1, 2014 to Jan 1, 2015.
- Eliminated the term "(net)" from the official name of the "open market price" because of the inexact definition of the term "net"
- Changed the order of the prices presented in the Price Watch table
- Made minor changes to the wording of descriptions of the various prices

The changes discussed herein are the culmination of a major initiative over the past year to improve our price reporting. Steps we have taken as part of this process include:

- Audited our existing price assessment methodology
- Talked to key market players
- Reviewed legal issues around price reporting
- Looked at best practices in price assessment from other industries

In addition, RISI acquired Official Board Markets (OBM) several months ago, and part of the integration process has been to explore how to rationalize OBM's containerboard price coverage with that of PPW.

As a result, RISI will:

- 1. Introduce a new PPW "open market price" and phase out OBM prices
- 2. Improve our price assessment methodology

RISI's containerboard prices are relied on by players throughout the supply chain, from producers to converters to buyers of packaging, so we have proceeded deliberately with these changes and gathered extensive market feedback before finalizing them.

INTRODUCTION OF NEW PPW "OPEN MARKET PRICE" AND PHASING OUT OF OBM PRICES

After acquiring OBM, we looked at the differences between OBM and PPW prices and methodologies. The most notable difference is that PPW measures transaction prices before market-wide discounts while OBM measures



prices after market-wide discounts. (In this respect, PPW prices are "gross" prices and OBM "net" prices, although we are avoiding using the term "net" because of possible ambiguity in the term.)

There is broad agreement among the many market players we've spoken to that a price after market-wide discounts would be a better representation of market activity. So, we will create a new open market price series in PPW and phase out the OBM prices as well as, eventually, the PPW legacy list and transaction prices. The new open market prices will be similar to the level of the current OBM prices.

Current price table

(simplified)

	Oct. 2012	Sep. 2012	Oct. 2011
Linerboard (42-lb)			
Unbleached kraft, East (list \$735-745*)	\$685 - 695	\$635 - 645	\$635 - 645
Unbleached kraft, West (list \$755-765*)	705 - 715	655 - 665	655 - 665
High performance, (35-36 lb) (list \$745-755*)	695 - 705	645 - 655	645 - 655
White top, East (list \$920-930*)	885 - 895	835 - 845	835 - 845
White top, West (list \$940-950*)	905 - 915	855 - 865	855 - 865
Corrugating medium (26-lb)			
Semichemical, East (list \$705-715*)	655 - 665	605 - 615	605 - 615
Semichemical, West (list \$755-765*)	705 - 715	655 - 665	625 - 635

Disclaimer

The following images present how Price Watch tables will be presented in the future. They include prices for illustration only – these are in no way predictions of what prices will be or should be.



MARCH 2013 - NEW PRICES

_	Mar. 2013	Feb. 2013	Mar. 2012
Open market price 1			
Net small/medium buyer price for standard, open mark	et transactions in ongoing supply	relationships."	
Linerboard (42-lb)			
Unbleached kraft, East	590 - 600	590 - 600	540 - 550
Unbleached kraft, West	610 - 620	610 - 620	560 - 570
High performance (35-36 lb)	610 - 620	610 - 620	560 - 570
White top, East	790 - 800	790 - 800	740 - 750
White top, West	810 - 820	810 - 820	760 - 770
Corrugating medium (26-lb)			
Semichemical, East	560 - 570	560 - 570	510 - 520
Semichemical, West	610 - 620	610 - 620	530 - 540
Linerboard (42-lb)			
Unbleached kraft, East	\$685 - 695	\$685 - 695	\$635 - 645
Unbleached kraft, West	705 - 715	705 - 715	655 - 665
High performance (35-36 lb)	695 - 705	695 - 705	645 - 655
White top, East	885 - 895	885 - 895	835 - 845
White top, West	905 - 915	905 - 915	855 - 865
Corrugating medium (26-lb)			
Semichemical, East	655 - 665	655 - 665	605 - 615
Semichemical, West	705 - 715	705 - 715	625 - 635
The open market price was introduced in Mar ne most pertinent price series	ch 2013 and is meant to repl	ace the transaction p	rice (gross) as
he PPW legacy "List price" can be calculated ontainerboard. This footnote will be discontine			domestic

NOTE: Open market price levels will be \$80 to \$100 lower than transaction price levels. Exact differentials will be announced in the February Price Watch. Once established, differentials will stay constant going forward.

1 The new "open market prices" will be \$80 to \$100 lower than the "transaction price" (exact levels to be announced in February's Price Watch). This differential will be constant going forward. The series is described as "Small/medium buyer price after market-wide discounts for standard, open market transactions in ongoing supply relationships." Footnote specifies that "The open market price was introduced in March 2013 and is meant to replace the transaction price (gross) as the most pertinent price series."

2 Description "Transaction price (gross)" will be added to original prices. The modifier "gross" had been added to clarify the way this price has been reported in the past; it does not represent a change in what is represented by the price. Series is described as, "Legacy PPW price series published prior to March 2013 representing the price before market-wide discounts. To be discontinued as of December 31, 2014."

3 "List price" will be moved to footer:

The PPW legacy "List price" can be calculated by adding \$50 to the transaction price (gross) for domestic containerboard. This footnote will be discontinued as of December 31, 2014.



The introduction of the new, lower open market price does NOT mean that the market price has moved down.

The open market price is lower than the gross transaction price because the former nets out the market-wide discounts that are applied in the market.

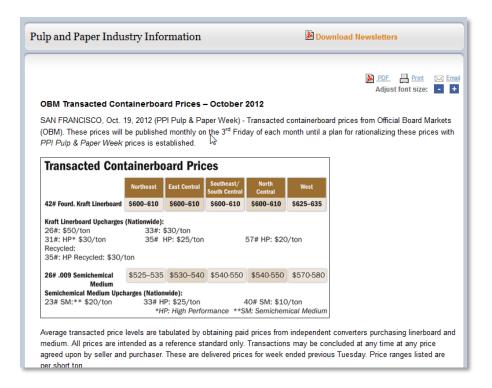
The gross transaction price is a level that virtually nobody actually pays for tonnage within our assessed specifications; everyone receives a discount off of this price. By contrast, the new open market price is a net price – a price that represents what small/medium-sized buyers are actually paying.

The fact that the open market price is lower than the transaction price in no way suggests that the market price has gone down. It's just a different view on the same market.

For historical comparisons, we will include a one-year history for this price. The differential between the gross transaction price and the open market price will be constant back to one year ago as well as going forward.

JUNE 2013 - OBM PRICES DISCONTINUED

- Through May 2013, OBM prices will be published online. Where to find OBM prices:
 - www.risi.com/OBMcontainerboard
 - On subscriber site, search for "OBM containerboard prices"
 - Note: Whereas OBM updated prices monthly, then published the same prices in each week's
 issue, PPW publishes prices only when those prices are updated each month (3rd Friday of each
 month). OBM prices are published on the same schedule
- Prices discontinued as of June 2013
- Until then, the differential between OBM and PPW prices will be constant





SEPTEMBER 2013 - TRANSACTION PRICE TO FOOTNOTE

	Sep. 2013	Aug. 2013	Sep. 2012
Open market price			
Net small/medium buyer price for standard, open mark	et transactions in ongoing suppl	y relationships	
Linerboard (42-lb)			
Unbleached kraft, East	\$590 - 600	\$590 - 600	\$590 - 600
Unbleached kraft, West	610 - 620	610 - 620	610 - 620
High performance (35-36 lb)	610 - 620	610 - 620	610 - 620
White top, East	790 - 800	790 - 800	790 - 800
White top, West	810 - 820	810 - 820	810 - 820
Corrugating medium (26-lb)			
Semichemical, East	560 - 570	560 - 570	560 - 570
Semichemical, West	610 - 620	610 - 620	610 - 620
Legacy prices The PPW legacy "List price" can be calculated containerboard. This footnote will be discontin	•		domestic
The PPW legacy "Transaction price (gross)" of			

⁻ The PPW legacy "Transaction price (gross)" can be calculated by adding \$95 to the domestic open market price for all grades except high-performance. For high-performance, add \$85 to the domestic open market price. This footnote will be discontinued as of December 31, 2014.

1 Transaction prices will move from main table to footnote:

The PPW legacy "Transaction price (gross)" can be calculated by adding \$TBD to the domestic open market price for all grades except high-performance. This footnote will be discontinued as of December 31, 2014.

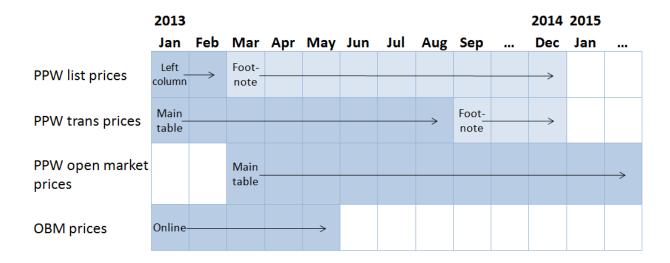
JANUARY 2015 - LEGACY PRICE FOOTNOTES DISCONTINUED

	Jan. 2015	Dec. 2014	Jan. 2014
Open market price			
Net small/medium buyer price for standard, open mark	et transactions in ongoing suppl	y relationships	
Linerboard (42-lb)			
Unbleached kraft, East	\$590 - 600	\$590 - 600	\$590 - 600
Unbleached kraft, West	610 - 620	610 - 620	610 - 620
High performance (35-36 lb)	610 - 620	610 - 620	610 - 620
White top, East	790 - 800	790 - 800	790 - 800
White top, West	810 - 820	810 - 820	810 - 820
Corrugating medium (26-lb)			
Semichemical, East	560 - 570	560 - 570	560 - 570
Semichemical, West	610 - 620	610 - 620	610 - 620



TIMELINE FOR CHANGES

REVISED TIMETABLE



IMPROVEMENTS TO PRICE ASSESSMENT METHODOLOGY

The changes noted above are the most visible changes, but just as important are the improvements we're making behind the scenes.

These improvements have been driven by talking to key players throughout the market; looking at price assessment practices in other industries such as oil, gas, metals and chemicals to identify best practices; and by consulting antitrust attorneys about legal issues around price reporting.

Another area of focus has come from the International Organization of Securities Commissions (IOSCO), which has issued principles for price reporting agencies. Those principles are specifically for oil price reporting agencies, but many of the principles apply to containerboard as well, and we are adopting those principles.

All together, this improvement initiative has generated a number of improvements that will reinforce RISI's robust price assessment methodology.

RISI'S PRICE ASSESSMENT METHODOLOGY TODAY

We have the most comprehensive methodology in the industry and it is improving with OBM's integration.

How information is gathered: RISI's price assessment team gathers information on agreed transactions through a comprehensive survey of market participants, including buyers and sellers.

What is represented: RISI's assessment of the range in which the large majority of <u>standard</u>¹, <u>open market</u>² transactions <u>in ongoing supply relationships</u>³ <u>have occurred</u>⁴.

1. Standard =

Transactions meeting specifications listed for each grade (see methodology and specifications online)



Prices are normalized to represent prices paid by small to mid-size buyers (i.e. buyers of <5000 tons/month)

2. Open market =

- Excludes transactions that are contractually linked to a published price (whether published by RISI or otherwise)
- Arm's-length, i.e. transactions between unaffiliated parties

3. In ongoing supply relationships =

• All transactions *excluding* orders filled over a period of less than one month without the expectation of future business

4. Time window =

- Ordered from the first of the month through the week of publication
- To the extent that suppliers have offered to postpone price increases for particular customers, those increases are *not* reflected in the current month's assessment

Following are proposed improvements to RISI's price assessment methodology:

1) INCREASED PRICE ASSESSMENT RESOURCES

- Acquisition of OBM
- Retention of OBM staff + rationalization of OBM/PPW price series → greater resources for price assessment
- Significant increase in survey size

2) PROCESS IMPROVEMENTS

- · Documentation of methodology
- Transparent procedures for changes in methodology
- Qualification and succession planning of price assessors
- Procedures for internal sign-off on assessments
- Measures to avoid conflicts of interest
- Formal complaint procedure

3) NEW CONTRIBUTED TRANSACTION PRICE SYSTEM

- New, more formal process
- Collection of auditable transaction data
- Aggregation through a standard, objective calculation procedure
- · Separate data-collection process from our price surveying team to maintain confidentiality
- Supplement to existing survey method
 - Many players resistant to transparency

It's important to note that this new system will be a supplement to our existing price collection methodology.



Some players in the industry want greater transparency, and a price index based on a contributed transaction price system where every single transaction was reported would be a very reliable, efficient index.

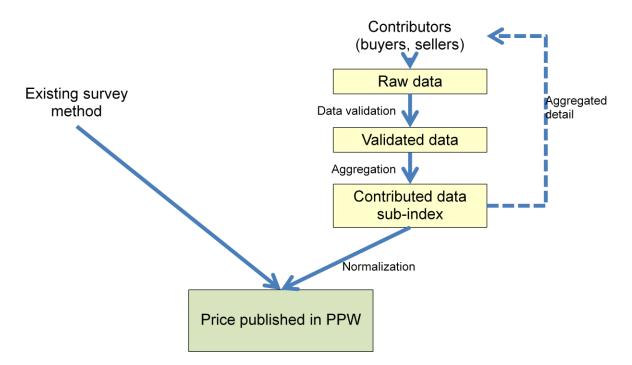
However, many players in the industry don't want transparency. There are strong incentives for some players in this industry against price transparency. So many of these players likely won't want to participate in a price collection system like this.

One of RISI's reasons for existing is to bring transparency to the forest products industry. Overall, transparency of price and other information helps achieve the most efficient allocation of resources and ultimately benefits investors and well as customers throughout the supply chain.

This new contributed transaction price system will improve our price assessments and increase price transparency. We will have incentives for market participants to contribute their data. But in all likelihood there will still be significant resistance to this new system. So it will be a supplement to our existing survey method, which has proven an effective method to bring price transparency to a market where all players don't want price transparency.

HOW THE SYSTEM WOULD WORK

The details of how this new system will work are still to be worked out based on dialog with the industry. However, following is a rough proposal that seeks to get the dialog started.



Data validation: We will have a series of checks to validate submissions and follow up on any that are questionable.

Aggregation: To be done according to objective criteria, e.g. exclude highest 10% and lowest 10%, then weighted average of remainder capping the weighting of any single respondent at 30%.



Normalization: The weighted average from contributed data will be normalized to the open market price. For instance, if weighted average of contributed data is \$586 over the base period and the PPW open market price is \$600, the normalization adjustment would be \$14, so the normalized contributed data price would be the contributed data weighted average + \$14.

Aggregated detail: Once we have a sufficient number of contributors, contributors will be able to see the results of the contributed data sub-index, including additional data break-downs beyond what is published in PPW.

CONTRIBUTING DATA

- Contributors will sign an agreement to provide accurate data
- Contributes will submit data monthly
- Data contributions will be auditable by a third party
- The exact information to be submitted for each grade is still to be determined. Possibilities include:
 - Weighted average price, total volume
 - o Highest and lowest prices with volume for each
 - o One to three transactions per site, with price and volume for each

INCENTIVES TO CONTRIBUTE

- Contributed data sub-index, plus break-outs (once we have sufficient participation):
 - o Spot vs contract prices?
 - o Prices for recycled grades?
 - Additional regional break-out?
- Benchmarking: Participants will have access to a secure site that will show their contributed prices compared to the overall average over time
- Confidentiality will be ensured. This new system will be completely separate from our price survey
 team and our editorial team. RISI has been collecting and aggregating confidential information from
 companies for more than 20 years with a track record of confidentiality that has never been
 compromised. We have a series of strict protocols around this sort of data, so we are confident in
 our ability to keep individual customer data confidential.

HOW YOU CAN HELP US IMPROVE RELIABILITY OF PRICE ASSESSMENTS

- Contribute to our new contributed transaction price system
- Be a source: Contact editorial director Will Mies, <u>wmies@risi.com</u>, 415-947-6617
- If you buy/sell containerboard, don't index all of it to PPW prices. A healthy open market...
 - o ...lets prices improve the efficiency of the market
 - ...gives us something to measure