

TiO2 Industry Update: 2Q14

Price Increases Delayed Until 2015; Waiting on M&A

- **Citi's Take** — TiO2 continues to be topical with both credit and equity investors as they wait: **(1)** the scale and timing of a rebound in pricing; & **(2)** the latest round of consolidation to play out. Sequential themes for 2Q14 included volume growth, a decline in inventory levels, flat pricing and lower raw material costs.
- **Price Increases Will Likely Wait Until 2015** — Given the commentary from key producers we believe price increases of any consequence will not occur in 2H14. Therefore our previously stated thesis that the TiO2 recovery could be delayed appears to be playing out.
- **Credit Implications** —We move to Neutral from Sell on the HUN Senior Notes due in 2020 which are off 4 points since the end of June (we had changed our recommendation to Sell from Neutral in May). We maintain a Sell rating on the TROX Senior Notes due in 2020 as we believe current trading levels don't fully reflect the elevated M&A risk.

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M&A Process Drags On Some More

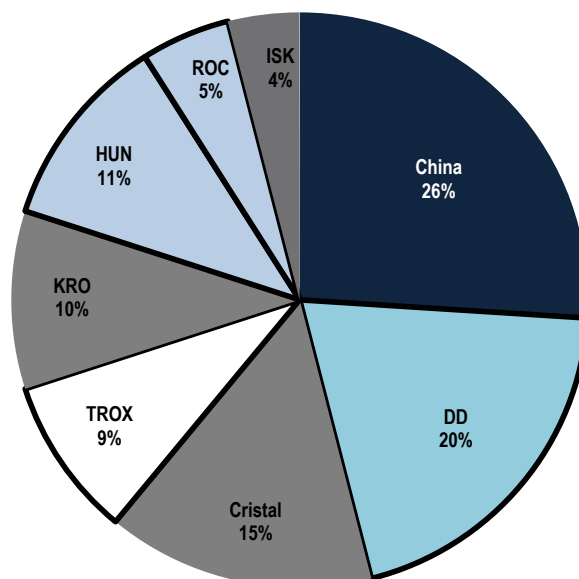
■ Announced Deals

- **Huntsman (HUN)**: HUN currently intends to extend the termination date for the deal to acquire Rockwood's TiO2 and additive assets a couple of months beyond the initial 1 year time frame of 9/17/14.
 - **09/17/13**: Management announced planned acquisition. Guided to a 1H14 close for its acquisition of ROC's TiO2 and Performance Additives assets.
 - **03/05/14**: European Commission announced that it had chosen to extend its review of the deal until July 22, 2014 as it explores implications for the EU TiO2 market.
 - **04/22/14**: HUN submitted concessions to the EU; EU gave no details on the proposed commitments, and extended their review period to August 20th.
 - **05/22/14**: EC extended deadline a second time to September 18th.
 - **07/18/14**: HUN submitted further concessions to EU. Deadline for decision remained September 18th.
 - **07/30/14**: On their 2Q14 earnings call HUN stated they believed they would receive EU approval by the end of 3Q14 and that remedies submitted did not include any plant divestment.
- **DuPont (DD)** management stated on their 2Q14 call that they remain on track for a mid-2015 spin-off of Performance Chemicals which houses TiO2 and other chemical lines including fluoroproducts. Management announced the planned carve-out back on October 24, 2013.

■ Continued Interest

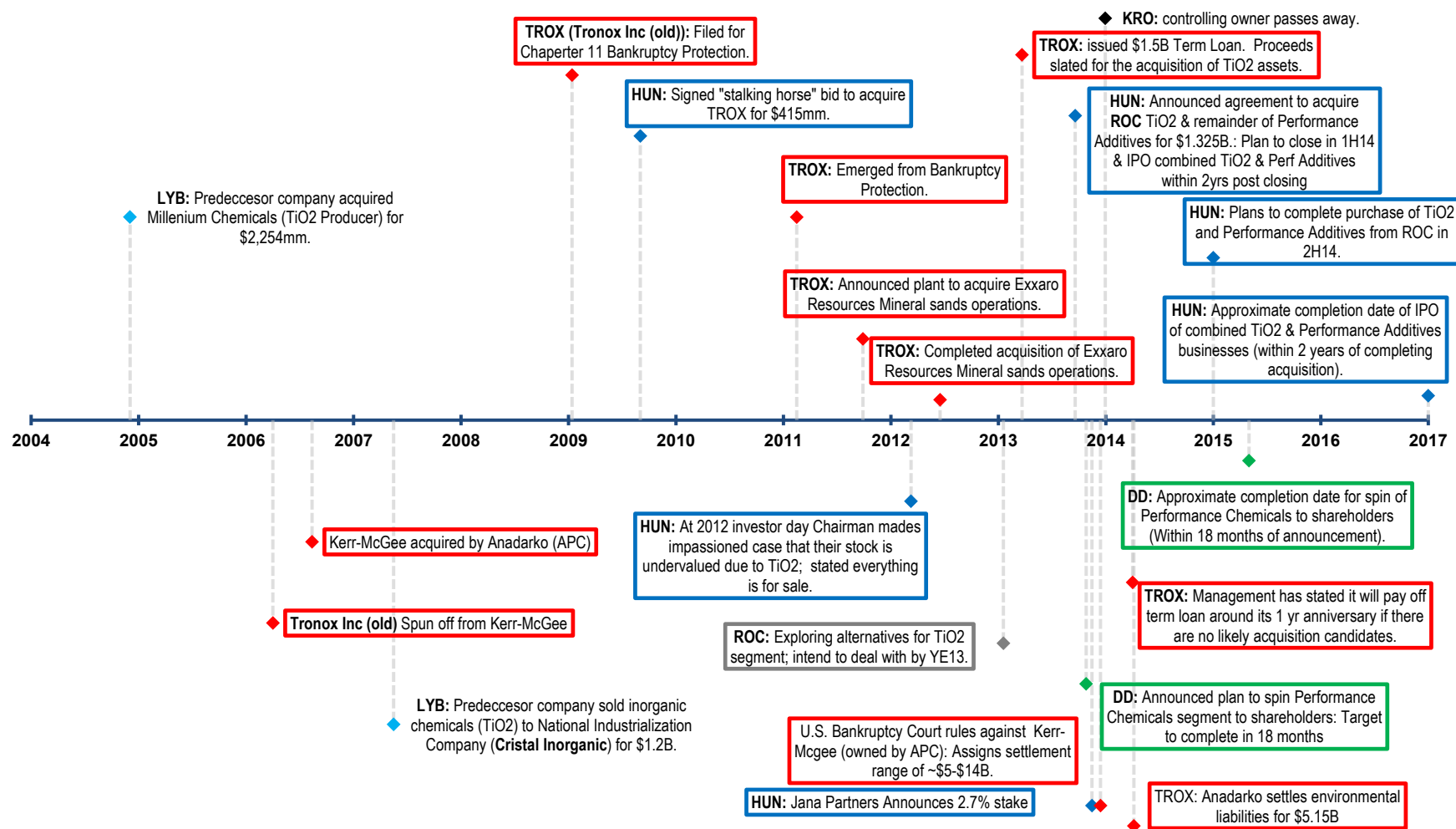
- **Tronox (TROX)**: On their 2Q14 earnings call, management stated they continue to explore M&A targets and also appear open to selling the company.

Figure 1. Global TiO2 Capacity



Source: Citi Research and Company Presentations.

Figure 2. TiO2 Timeline



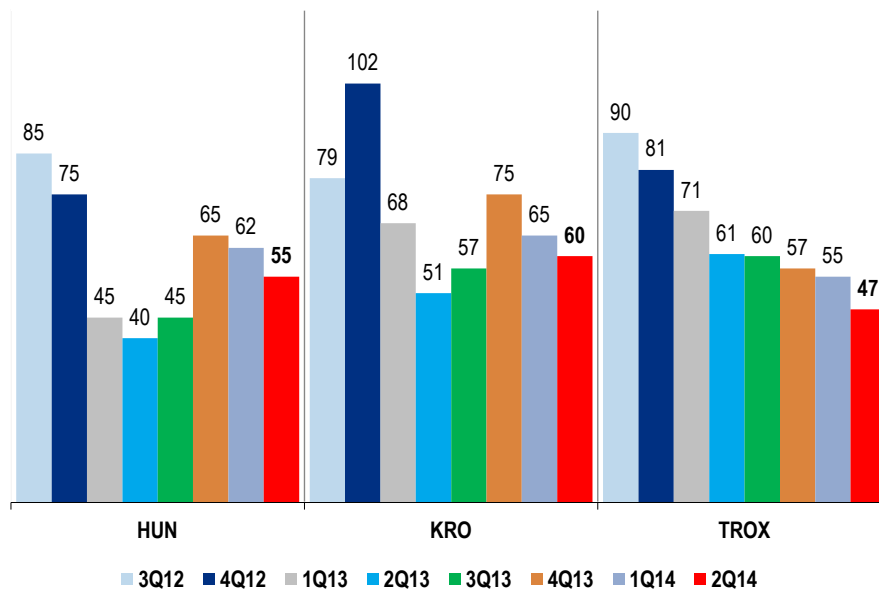
Source: Citi Research and Company Filings.

Prices Stable as Inventories Decline

Producers have destocked in the latest two quarters post the 4Q13 jump in inventories. Nevertheless less than robust demand combined with lower raw material prices has resulted in an inability to raise prices in 2014.

Inventories Lower: 3 producers reported their 2nd consecutive drop in inventory.

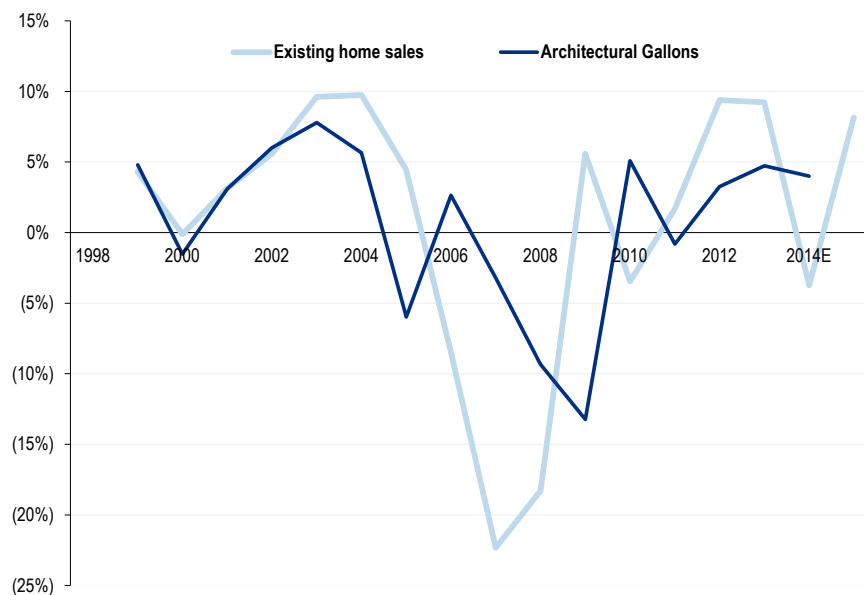
Figure 3. TiO2 Days Inventory Outstanding



Source: Citi Research

Existing Home Sales Disappoint in 2014: coatings demand highly correlated with existing home sales.

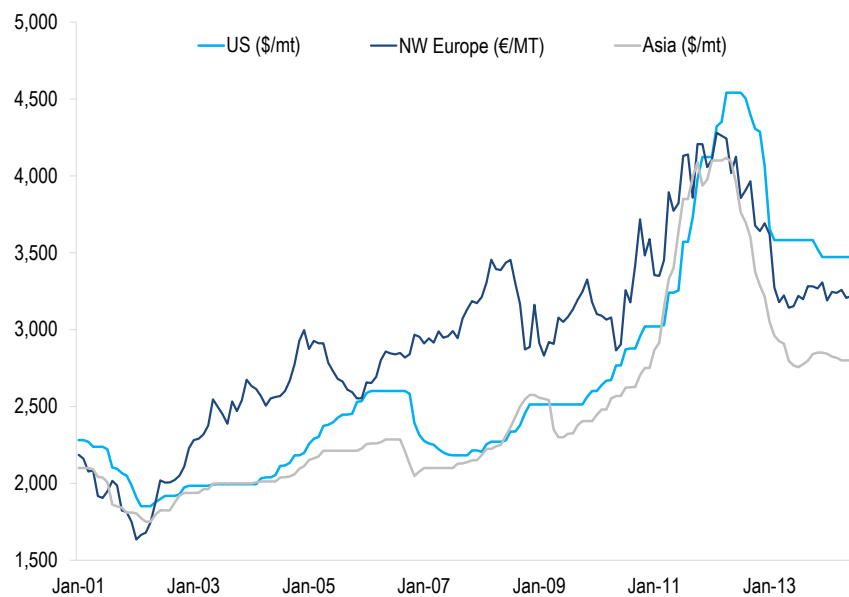
Figure 4. Annual Existing Home Sales vs. Architectural Gallons (YoY % Chg)



Source: Citi Research

Pricing stable to down QoQ.

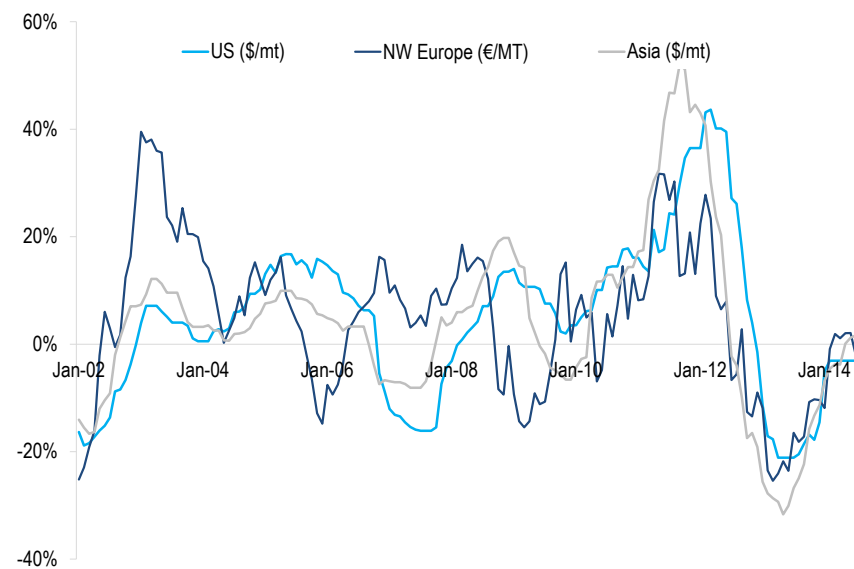
Figure 5. Global TiO2 Price Trends



Source: Citi Research and ICIS.

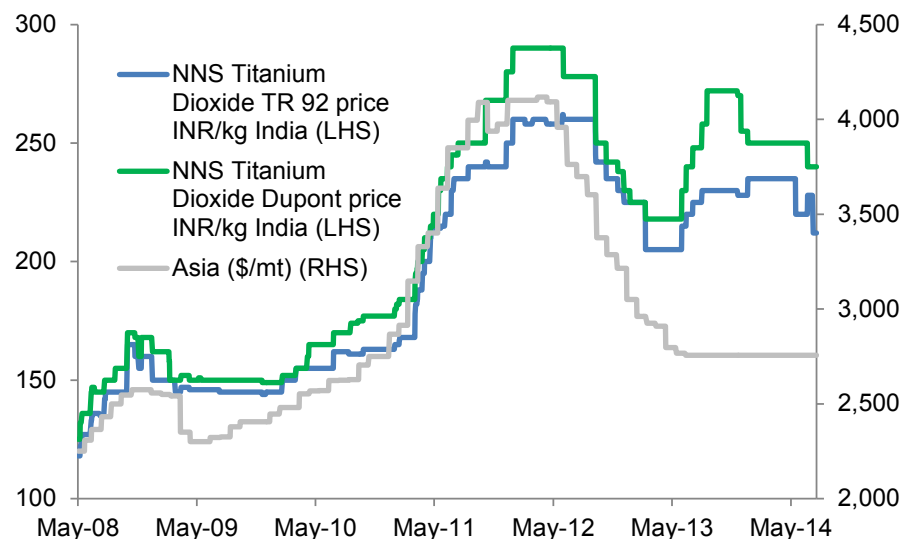
YoY Declines Decrease: Producers hoping for 2H14 price increases.

Figure 6. YoY % Change in Global TiO2 Prices



Source: Citi Research and ICIS.

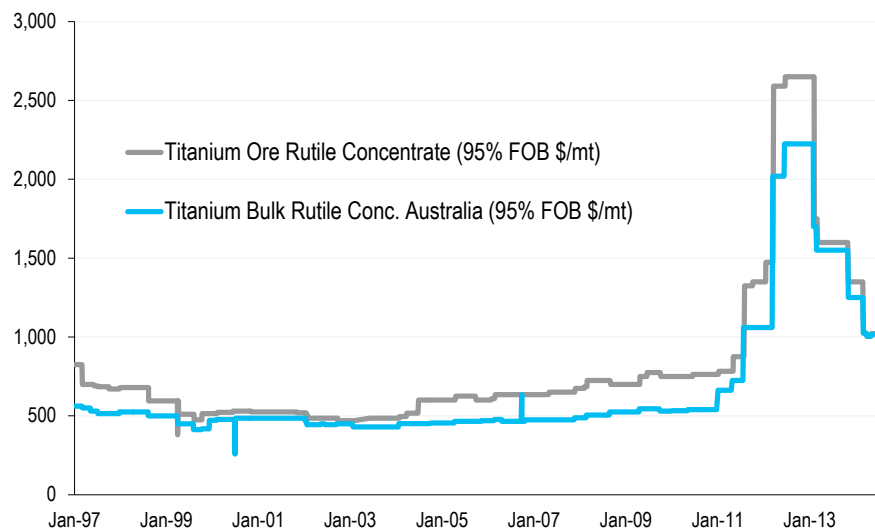
Figure 7. Asian TiO2 Prices



Source: Citi Research, ICIS, NNS and Bloomberg.

Raw Material Prices Head Lower: *Ore prices have fallen ~60% from peak, but are up since 2011.*

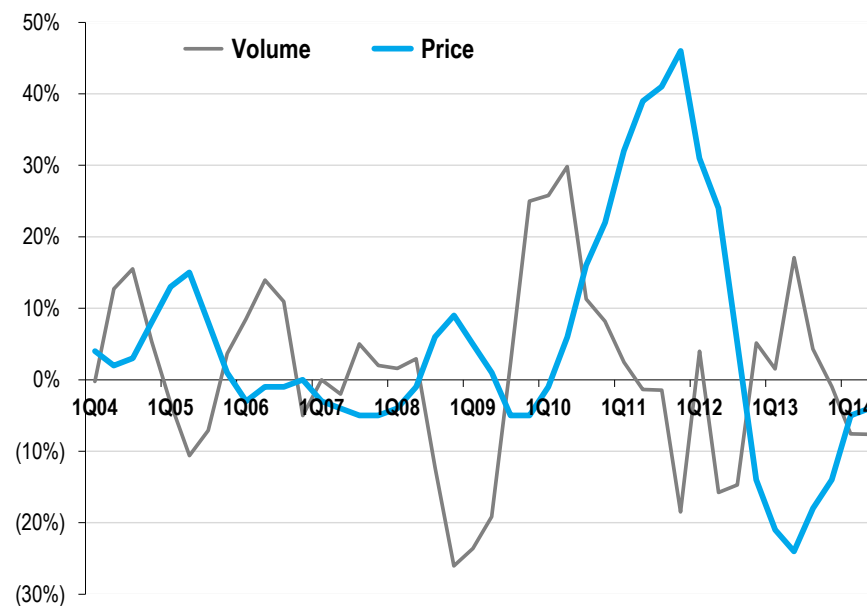
Figure 8. Titanium Ore Prices



Source: Citi Research and Bloomberg

Volume Growth Proceeds Price Increases

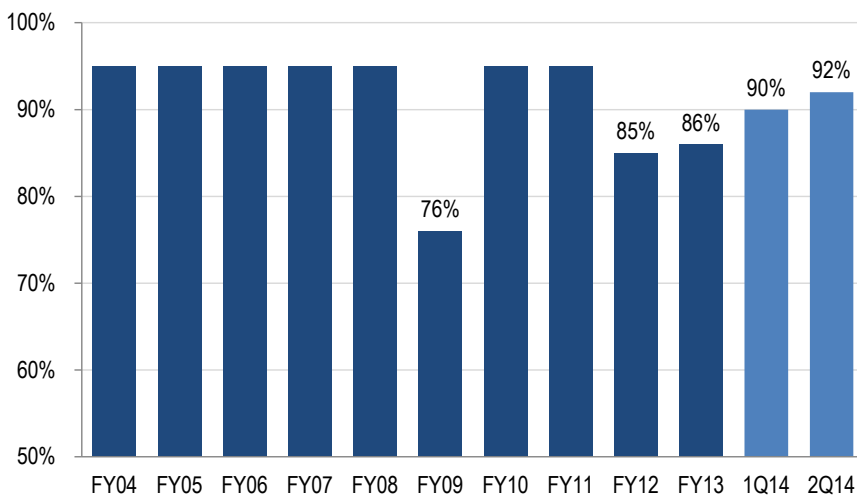
Figure 9. Kronos (KRO) Historical TiO2 Volume & Price Trends (YoY %)



Source: Citi Research, Company Reports and Presentations.

Utilization Rates Rebounding: Destocking in 2012 and 2013 drove down operating rates.

Figure 10. Kronos (KRO) Historical TiO2 Operating Rates

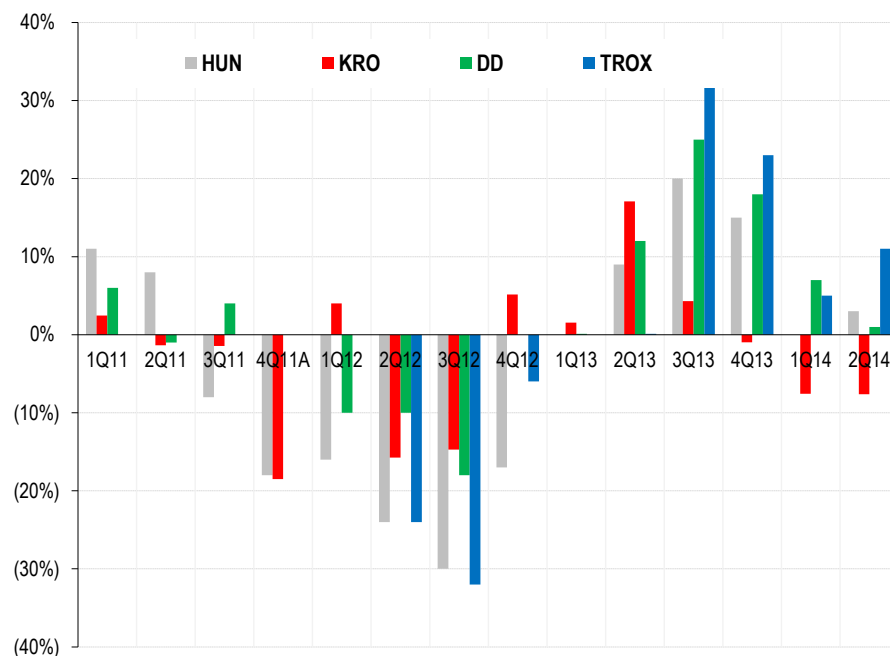


Note: for 2004 to 2008 and 2011 and 2011 management stated operating at near full rates.

Source: Citi Research

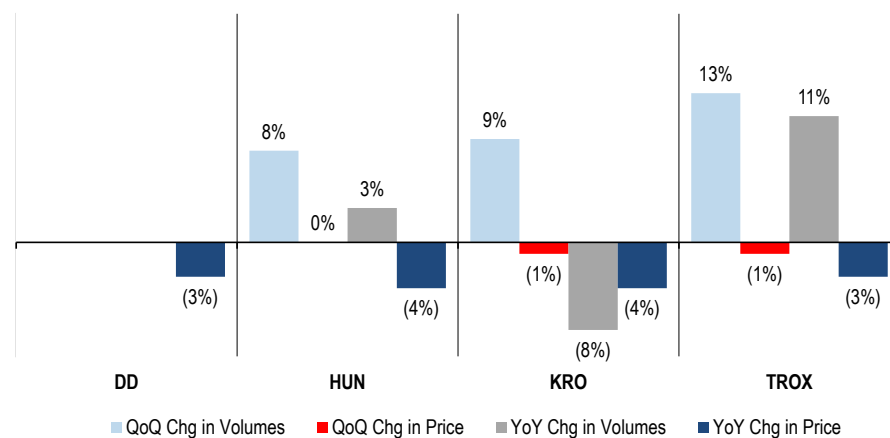
Tough YoY Comps for Volumes

Figure 11. Historical YoY% Change in Tio2 Volume



Source: Citi Research, Company Reports and Presentations

Figure 12. Industry TiO2 QoQ & YoY Volume/Price Trends for 2Q14



Source: Citi Research, Company Filings, Presentations and Conference Calls.

Figure 13. TiO2 Data Points & Commentary

Ticker	DD	HUN	KRO	TROX
QoQ Chg in Volumes	Na	8%	9%	13%
QoQ Chg in Price	Slightly Up	0%	(1%)	(1%)
YoY Chg in Volumes	Slightly Up	3%	(8%)	11%
YoY Chg in Price	(3%)	(4%)	(4%)	(3%)
Commentary	6th consecutive quarter of YoY Volume Growth, as market demand stabilizes and Europe recovers.	Unlikely to hit target of \$200mm annual run rate in 2H14 which was based on mid-year price increases. (At \$100mm run rate as of 2Q14).	Quarter benefitted from lower raw material costs which was partially offset by lower TiO2 prices and volumes	Expect gradual improvement in pigment operating rates will draw down current excess of feedstock inventories.
Operating Rate	na	Expect China operating rates to remain stable (due to new capacity) v.s. improvement in N.A. and EU.	92% in 2Q14, 90% in 1Q14, 81% in 4Q13, 82% in 3Q13, 90% in 2Q13, 92% in 1Q13, 80% in 4Q12, 71% in 3Q12 86% in 2Q12.	Plant operating rates in the quarter were at 'normal levels' in the high 80% range.
Raw Materials	na	Favorable ilmenite raw material advantage v.s. traditional...Sees stable to down ore prices.	Expect cost of sales per metric ton of TiO2 sold in 2014 will be lower than 2013. 2H14 < 1H14.	Average feedstock cost was \$834/MT, down from \$921/MT in first quarter. 2Q14 feedstock purchases was \$714/MT.
Outlook	TiO2 industry environment remains stable, moderately lower ore costs anticipated	Expecting 2H14 prices to be flat with 2Q14.	For FY14, expecting higher volumes, lower feedstock costs, and higher selling prices. Also expecting higher production volumes, although will continue to operate below production capacity.	Had originally anticipated turning point in price in 2H14. Into 3Q14 not expecting much in terms of 2H14 price increase.

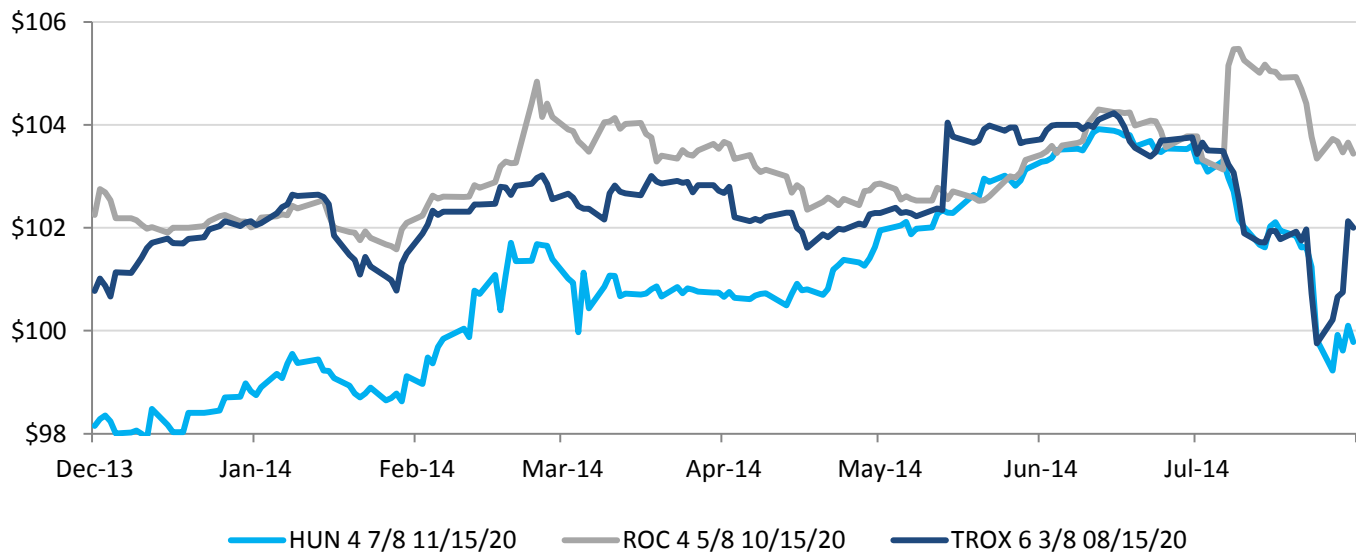
Source: Citi Research, Company Filings, Presentations and Conference Calls.

Figure 14. Bond Table

Coupon	Des	Citi Rating	Maturity	Moody's/S&P	Amt Out	Px (Ask)	YTW (%)	Net Leverage	Total Leverage
HUNTSMAN INTERNATIONAL (HUN) - Underweight									
4.875%	Sr Nts	Neutral (2)	11/15/2020	B1(S)/B+(N)	\$650	100.500	4.78%	2.0x	2.3x
8.625%	Sr Sub Nts	Neutral (2)	3/15/2020	B2(S)/B+(N)	\$350	107.750	2.56%	2.6x	2.9x
8.625%	Sr Sub Nts	Neutral (2)	3/15/2021	B2(S)/B+(N)	\$530	109.750	3.34%	2.6x	2.9x
ROCKWOOD SPECIALTIES (ROC) - Marketweight									
4.625%	Sr Nts	Neutral (2)	10/15/2020	Ba1(RFU)/BB+(P)	\$1,250	104.750	3.37%	1.1x	4.5x
TRONOX PIGMENTS (TROX) - Underweight									
6.375%	Sr Nts	Sell (3)	8/15/2020	B2(S)/BB-(S)	\$900	103.000	5.53%	2.8x	6.5x

Source: Citi Research and Company Filings.

Figure 15. YTD Bond Prices (\$)



Source: Citi Research and Citi Velocity

Related Publications

High Yield

- 08/07/14: [Tronox LTD \(TROX\) 2Q14 First Look - 2Q14 Ahead of Expectations, M&A Risk Lingers](#)
- 05/18/14: [TiO2 1Q14 Industry Update - Room for Consolidation: Volumes \(+\), Pricing Stable & Inventory \(-\) QoQ](#)

Equity

- 07/30/14: [Huntsman Corp \(HUN\) - Solid Results on Polyurethanes, TiO2 Lags;](#)
- 07/22/14: [E I du Pont de Nemours and Co \(DD\) - Adjusting to Slower Growth; What's Next for the Portfolio?](#)
- 11/26/13: [TiO2 – Emerging from an Eclipse - Implications for Pigment Producers and Feedstock Suppliers](#)

Appendix A-1

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% of companies in each rating category that are investment banking clients	78%	78%	59%

Huntsman Corp (HUN) — Issuer Portfolio Weighting and Issue Rating History

High Yield Credit Research

Analyst: James P Finnerty

Issuer		Issue			
Weighting	Date	Coupon	Description	Maturity	Date
UW	23-Oct-12	5.500%	Sr Unsec Nts	30-Jun-16	Sell (3) NC
		8.625%	Sr Sub Nts	15-Mar-20	Sell (3) Neutral (2)
		8.625%	Sr Unsec Nts	15-Mar-21	Sell (3) Neutral (2)
		4.875%	Sr Nts	15-Nov-20	Buy (1) Neutral (2) Sell (3)
					23-Oct-12 07-Jun-13 23-Oct-12 19-May-14 23-Oct-12 19-May-14 28-Jan-13 24-Feb-14 19-May-14

Rockwood Specialties Group, Inc. (ROC) — Issuer Portfolio Weighting and Issue Rating History

High Yield Credit Research

Analyst: James P Finnerty

Issuer		Issue			
Weighting	Date	Coupon	Description	Maturity	Rating
OW	23-Oct-12	4.625%	Sr Nts	15-Oct-20	Buy (1)
MW	03-Dec-13				Neutral (2)

Tronox Ltd (TROX) — Issuer Portfolio Weighting and Issue Rating History

High Yield Credit Research

Analyst: James P Finnerty

Issuer		Issue			
Weighting	Date	Coupon	Description	Maturity	Rating
OW	23-Oct-12	6.375%	Sr Nts	15-Aug-20	Buy (1)
MW	13-Dec-13				Neutral (2)
UW	31-Mar-14				Sell (3)

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