IHS Material Price Outlook: A 2014 Buyer's Guide

Knowledge is definitely power in today's business world, where having the most accurate and reliable data at your fingertips quickly translates into a competitive advantage, more confident decision-making and stronger bottom lines.

Top industry analysts provide valuable insight on pricing, availability, and production of key global commodities for the coming year.

Introduction

According to a recent IHS survey of 200 senior-level supply chain, sourcing and procurement professionals, the top commodities of concern in 2014 are chemicals and plastics, followed by nonferrous metals (i.e. aluminum, copper, lead, nickel, tin, titanium and zinc, brass, etc.), and ferrous metals (i.e. stainless steel, carbon steel, iron etc). For this reason, the *IHS Material Price Outlook: A 2014 Buyer's Guide* is broken into three sections focusing each section on these top commodities of concern, covering a mix of high-level insights and observations plus detailed data and analysis. Based upon insight from the IHS Pricing and Purchasing Service, this report provides vital market, price, and cost information for critical commodities in order to help organizations make informed sourcing and procurement decisions through 2014 and beyond.

Chemicals & Plastics: The Fundamental Building Blocks

Chemicals and plastics are essential building blocks for just about every industry, ranging from energy to electronics, transportation to packaging and consumer products.

Elevated costs and pricing volatility will prevail in the chemicals and plastics sector for 2014 as crude oil values remain high and demand for these fundamental feedstocks stay strong. World events have also impacted pricing for chemicals and plastics, which are highly affected by geo-political turmoil and weather-related disasters. "Producers of a number of these commodities are enjoying strong margins right now," says IHS Senior Director of Chemicals, Howard Rappaport, "and we don't expect to see much change until later in 2014."

Prices could be driven down by the introduction of new capacity (driven by low-cost feedstocks and integration strategies in North America, Asia, and the Middle East) in 2015 and beyond, but the additional supply isn't

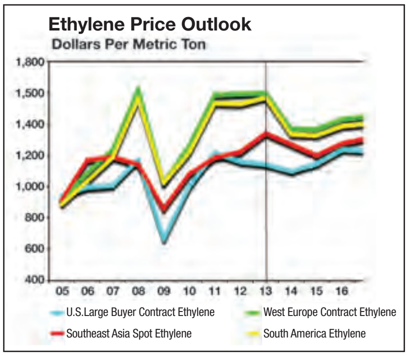


Figure 1: The turnaround schedule in the first half of 2014 for crackers could affect spot pricing starting in January as market players start pre-building inventories.

likely to change short-term market dynamics in the plastics and chemicals markets. With high crude oil prices continuing to pressure the cost side of the equation, the likelihood of significantly decreased prices is low. "Price levels will remain elevated for most products," Rappaport explains, "but more stable with downside potential later in the year."

Taking a closer look at the basic building blocks that comprise many chemicals and plastics, ethylene prices remain high—yet costs (particularly in North America) are low relative to history—and continue to yield record margins for producers. And while ethylene prices could spike slightly due to recent supply related issues, Rappaport expects them to remain "relatively flat" throughout most of 2014, primarily due to increased availability. "We expect a huge surge in ethylene capacity over the next several years in North America," he adds, "while producers in Asia and the Middle East continue to build as planned."

Propylene prices should remain "slightly higher" in 2014 but will continue to be volatile due to supply issues brought on by planned refinery outages and other events. Buyers of benzene should brace themselves for elevated prices over the next 12-18 months, while those procuring butadiene will find pricing to be heavily influenced by crude oil, beginning to trend higher in the second quarter of 2014.

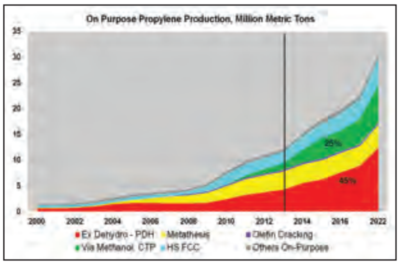


Figure 2: More "on purpose" production will drive global propylene capacity growth.

Chemicals & Plastics: Implications for Buyers

Chemicals & Plastics

- **Ethylene**
  - **Slightly lower prices near term, but higher in early 2014**
  - **Keep an eye on hurricane activity in USGC (season ends 11/30)**
  - **Big investments coming in US capacity longer term = better pricing**
- **Propylene**
  - **Tight supply in the US near term**
  - **Higher prices in early 2014**
  - **More "on purpose" production will provide relief**
- **Benzene**
  - **Closely following oil price trends**
  - **Prices will remain above $4 per gallon through 2014**
- **Butadiene**
  - **Recent high prices coming down early in 2014 as supply improves**
  - **Continuing volatility will plague rubber prices until "on purpose" capacity arrives**

Base Metal Markets: Range Bound

As 2014 comes into view, companies buying aluminum, copper, and nickel should collectively expect to see prices move in a fairly narrow band. Known for their volatility, base metal prices have fallen some 30 percent since their most recent peak in February 2011. We believe, however, that production costs will limit any substantial downside moves from this point. But the upside is also capped. Relatively sluggish demand growth coupled with ample capacity or high inventory levels look to restrain any upward price moves. "The global recovery is on track, but it's slow and sluggish," says IHS Lead Nonferrous Metals Analyst, John Mothersole. "There's a bottom forming right now with a mild uptick in pricing expected as we move through 2014."

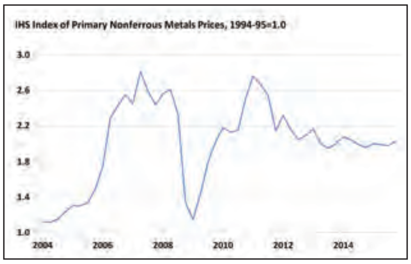


Figure 3: No return of the "Supercycle" – prices look flat 25 percent below their recent peaks.

Global nonferrous metals consumption growth remains relatively modest, with China being the wildcard in the market right now. "China is becoming more focused on domestic consumption rather than investment and exports," Mothersole points out, "and is therefore not likely to show the same strength in metal consumption that characterized the middle of the last decade." The chart below illustrates this and suggests a different demand profile going forward.

Global Metal Consumption

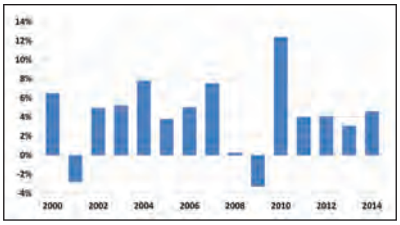


Figure 4: Global metal consumption growth improves, but remains modest in 2014.

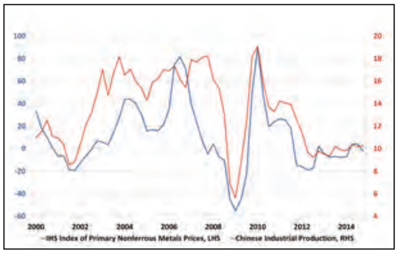


Figure 5: China's impact on base metal prices.

Aluminum, which remains in a large surplus condition, is plagued by a huge inventory overhang. Perversely, the physical market exhibits a degree of tightness because much of this inventory is locked up in so-called financing deals. These financing deals are essentially arbitrage plays that take advantage of the large difference between forward and spot prices right now. Higher interest rates would end this carry trade and release metal back onto the market, dampening prices. At the same time, however, softer prices, which are already below costs for many producers, would force production cuts, narrowing the market's surplus and setting up price increases. "Aluminum prices are unsustainably low right now," says Mothersole. "There's nowhere to go but up."

Nickel prices—another market currently oversupplied—will fluctuate in a fairly narrow range during 2014. "Nickel prices are also below production costs right now," Mothersole explains. "That limits any downside move, but it will also be difficult for nickel prices to move up even modestly given market conditions."

Copper is our one exception next year; prices should fall steadily across 2014. The reason is a growing surplus based on continuing strong growth in mine production. Current prices are well above production costs, meaning the downside in copper is potentially large if there is a substantial inventory build during the year.

While fundamentals do differ as a group, non-ferrous metal prices in 2014 "look to move sideways," according to Mothersole.

Non-Ferrous: Implications for Buyers

Nonferrous Metals

- **Aluminum**
  - **Prices are unsustainably low**
  - **But another surplus in 2014 and a huge inventory overhang limit the upside**
  - **Watch interest rates – they will signal the beginning of the end for financing deals and lower premiums**
  - **Changes in LME warehousing rules slated for April may also have the same effect**
- **Copper**
  - **Prices are headed lower**
  - **Surplus widens in 2014, with inventory heading higher**
  - **Downside is only limited by production costs, which are well below $6,000/mt**
- **Nickel**
  - **Like aluminum, prices are unsustainably low**
  - **But also like aluminum, another surplus in 2014 and high inventory limit the upside**

The Steel Markets: Good News for 2014, but Danger Lurks

Organizations shouldn't feel pressed to buy steel right now or through much of 2014, that is unless they want to lock in today's prices with

Where are the bargains?

China
- **China is overproducing as mills favor tonnage over profits**
- **Prices are often $150/metric ton lower than in the U.S., $70 below Europe**

Other Asia
- **Low Chinese prices pressure Korea and Japan, who have excellent quality**

Europe
- **Prices hover between those in Asia and North America**
- **Quality is often very high**

North America
- **Well above those already mentioned, but delivery is fast and quality is high**

South America
- **Protectionism makes South America one of the worst places to buy**

the knowledge that costs could jump slightly over the next few months. "Prices on steel should be flat in 2014," says John Anton, Director of the IHS Steel Service within the Pricing & Purchasing group. "Companies that lock in now would basically be mitigating risk; this is a good time to buy just to make sure the climate doesn't worsen."

Credit China with helping to keep steel prices at bay over the next 12 months. Mills in the country are over-producing to the point where the profit on an entire ton of steel equals a single bowl of rice. "They're losing money," says Anton. That lack of profitability could translate into a very different scenario in 2015 as low prices cause mill failures and, subsequently, higher prices.

In specific ferrous categories, hot rolled carbon sheet remains in high demand in NAFTA and China, but less so in Europe. Expect a slight price increase in late-2013 to retreat by early-2014. Anton advises locking in pricing now to minimize risk, but notes that there is "otherwise no reason to rush into procuring hot rolled carbon sheet." Demand for plate, on the other hand, should

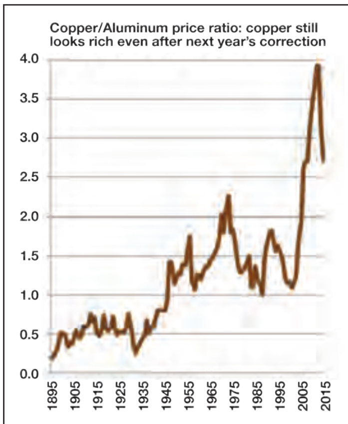


Figure 6: market looks well supplied with prices falling well below $6,500/mt next year

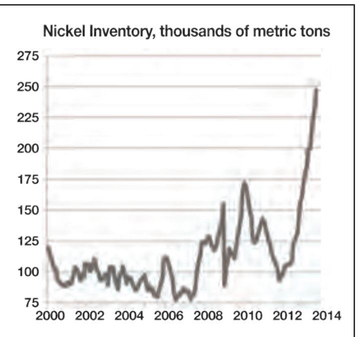
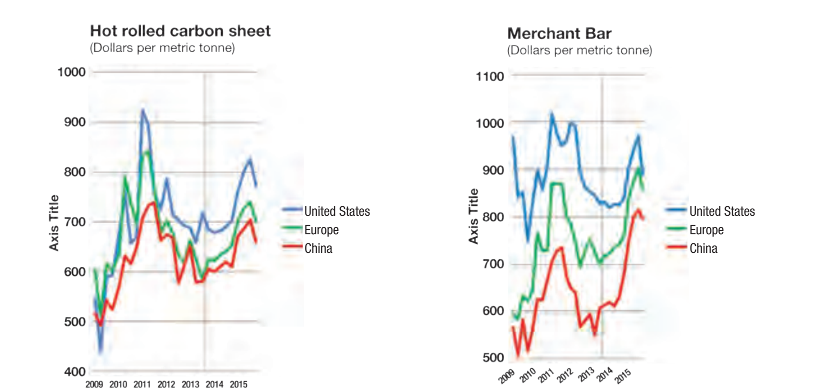


Figure 7: Nickel inventories are at record highs with a rising coverage ratio



Source: IHS, 2013

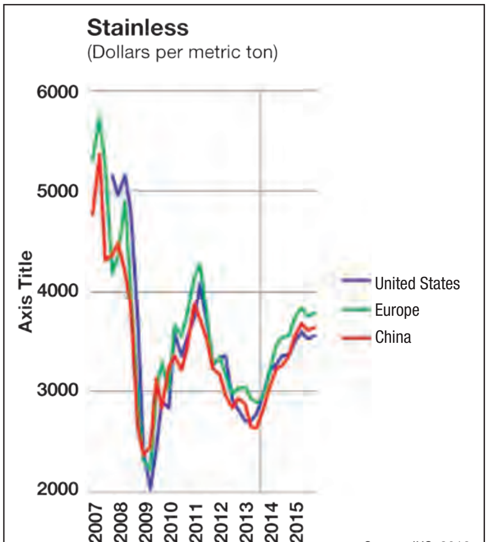
rise significantly in the coming year as premium over sheet is currently "much narrower than normal," says Anton. "Try to lock in current levels for 2014, especially Asian prices."

Demand for merchant bar will increase in 2014 in line with overall manufacturing trends and as idle capacity remains rampant. "Try to fight North American price hikes," Anton advises. "In other regions, lock now if cautious and buy spot if you are daring." Concrete reinforcing bar (rebar) should also see a spike in demand for 2014—also due to high levels of idle capacity—and a premium exists for this commodity sector, albeit not as wide as it does for other products. "Buy soon," says Anton. "The price is low and the logical direction is upwards."

Due to an expected price increase of nickel, buyers should expect an increase in nickel-bearing stainless steel. "Nickel is only 10 percent of the chemistry, but 70 percent of the cost," says Anton. "This is a very good time to lock in any nickel-bearing stainless." For 2014, chromium prices are sideways, so if you're not buying nickel-bearing stainless steel, you will be less pressured to buy now. There's less pressure on 400 grades than 300 grades. If you're buying 300 grades buy as quickly as you can. Right now, buyers are seeing the best prices they've seen since 2004.

Stainless Steel

- **Input costs (surcharges) will rise in 2014**
- **Nickel selling at/below cost**
- **Stainless mill capacity is high, utilization is fairly low**
- **Prices will rise in coming years**
- **Ni, Cr, other alloy metals increase for 2014 and beyond**
- **Beware of labor and electricity problems in South Africa**
- **Advice: buy ASAP**



Source: IHS, 2013

Conclusion

Commodity prices have become less stable. Their sting is now felt throughout the supply chain to a greater degree and at a greater speed than previous decades. Buyers can turn turmoil into opportunity by buying on dips during volatile times. To achieve success at this strategy, buyers must be actively monitoring weekly or even daily price movements.

IHS has created a volatility price indicator to help identify turning points and future commodity price swings. Understanding the characteristics of recent periods of volatility can provide valuable guidance in how to face volatile times to come.

The IHS Pricing & Purchasing Service enables supply chain cost savings by providing timely, accurate cost and price analysis. Armed with a better understanding of suppliers' cost structures and market dynamics, organizations can effectively negotiate prices, strategically time buys, and boost the bottom line.

Learn more at www.IHS.com/PricingPurchasing.

Ferrous: Implications for Buyers

Ferrous Metals

- **Sheet**
  - **Sit on your wallet until February or March, unless you are offered a full year at a reasonable price.**
- **Plate**
  - **Lock in current bargains. 2014 will not explode, but right now there is opportunity.**
- **Bar steel – Commodity grades**
  - **Buy soon or sit until 2014 Q2. Not extreme, but up.**
  - **Watch out for US protectionism on rebar and wire rod.**
- **Bar steel – Special bar**
  - **Live hand to mouth. Prices should fall sharply in coming months.**
- **Stainless**
  - **Buy now! This is our most clear cut advice.**