

The logo for Platts, featuring the word "platts" in a white, lowercase, sans-serif font with a horizontal line underneath. The logo is set against a blue background with a grid pattern and a globe-like texture.

## Copper, Aluminum and Magnesium Outlook

May 12, 2011

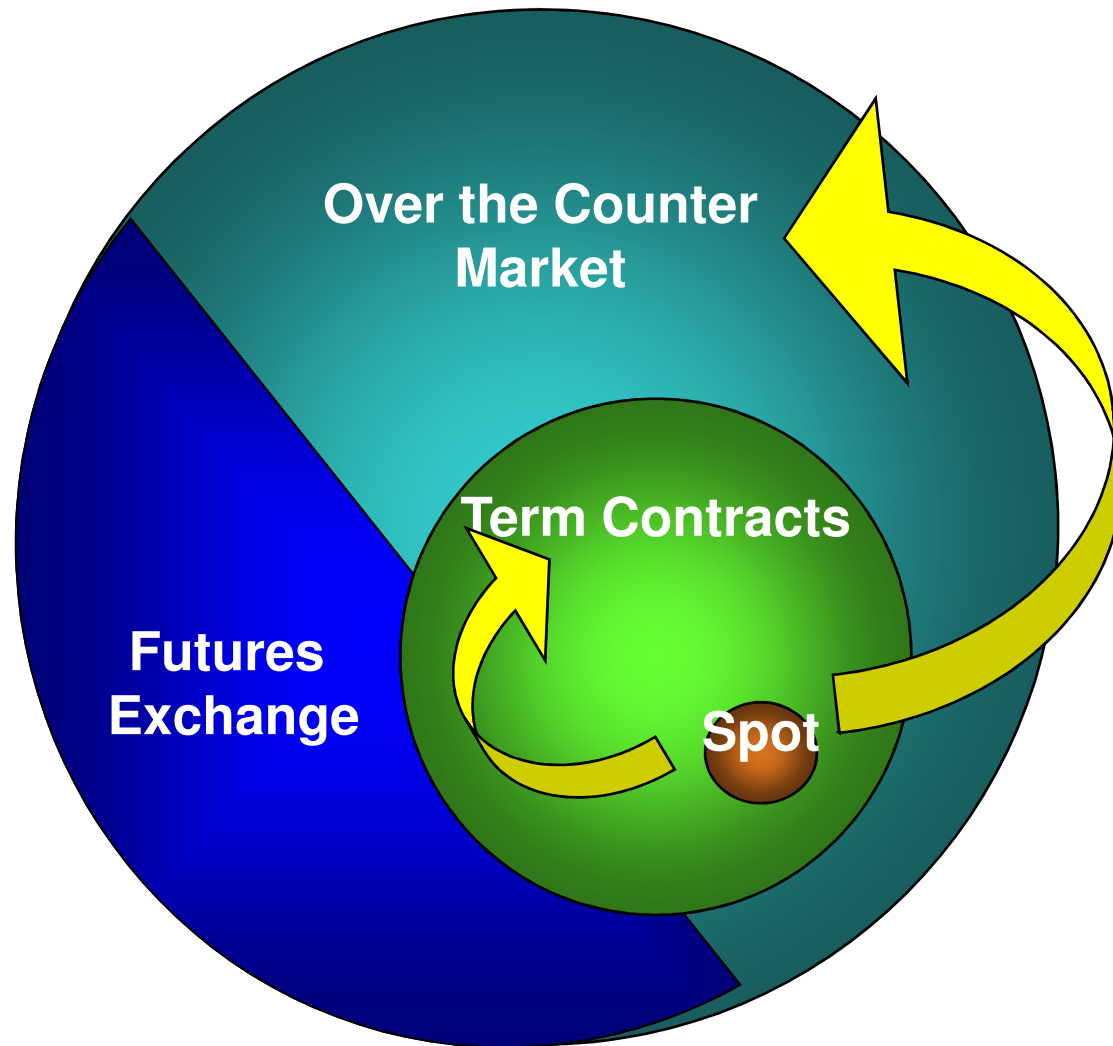
Karen McBeth  
Global Editorial Director  
Platts Metals Group

Advanced Purchasing Dynamics'  
2011 Motor Vehicle Metals &  
Resins Conference, Troy, MI

# Agenda

- **Part 1** – Platts assessment methodology
- **Part 2** – 2011 copper trends
- **Part 3** – 2011 aluminum trends
- **Part 4** – 2011 magnesium trends

# Commodity markets are structured around a spot price

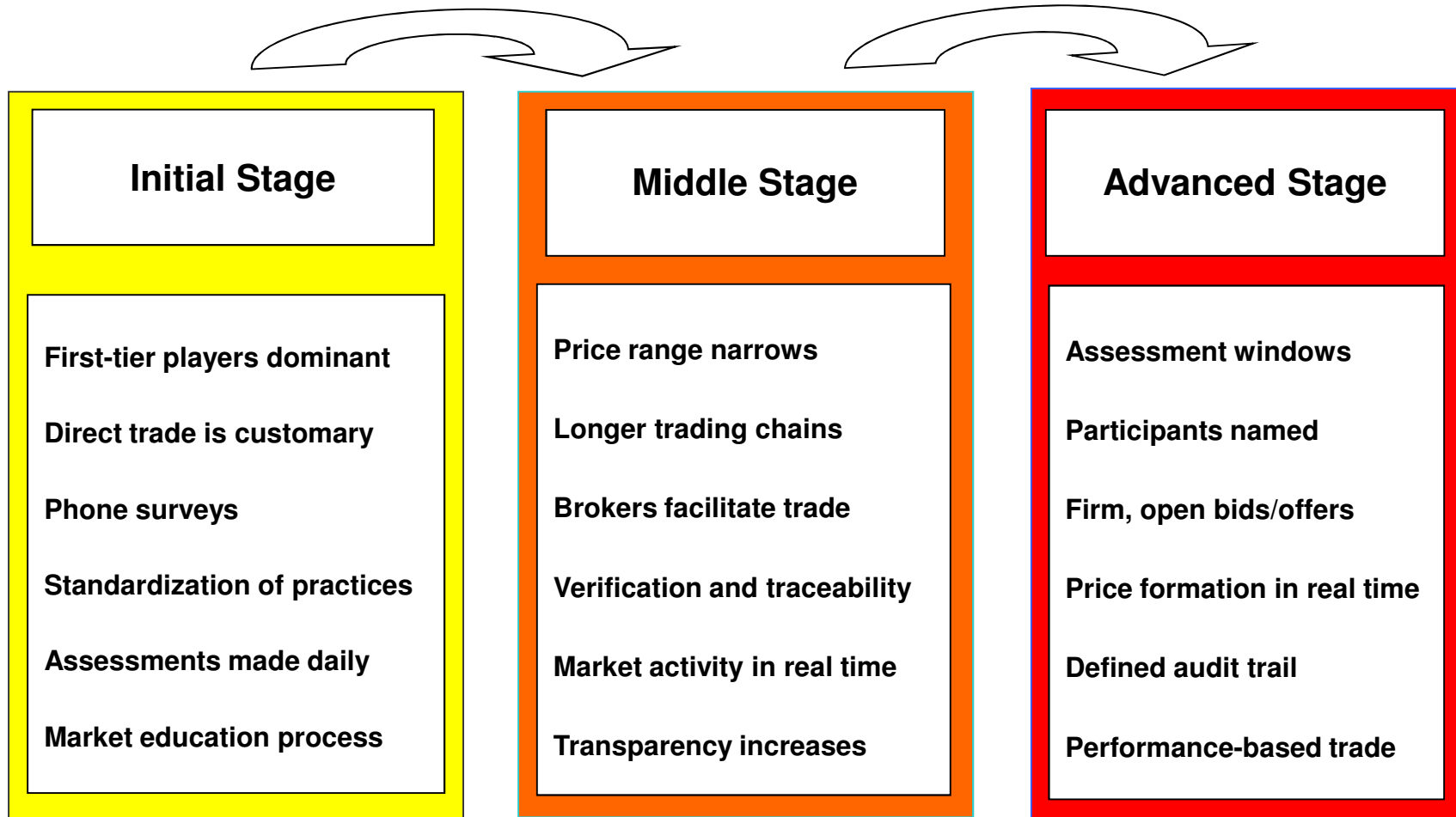


- Spot prices are established at the margin
- ‘Floating’ term contracts reference off spot prices
- Over-the-counter paper swaps settle off or “price out” against averages of spot price assessments

## Benchmark Pricing: What the Market Expects

- ✔ Convergence between market values and published values
- ✔ Independence
- ✔ Clear methodology based on industry input
- ✔ Full transparency

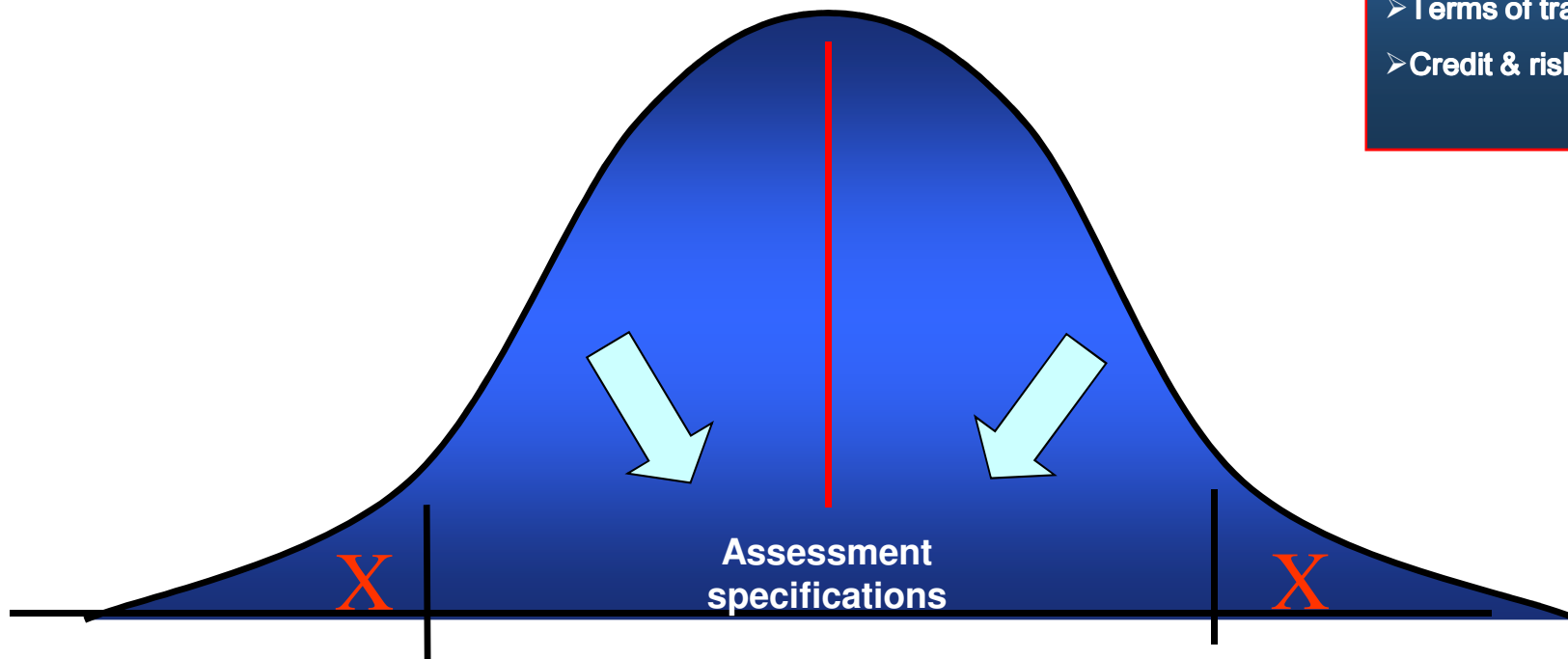
# Benchmarks evolve with greater transparency, standards



# Benchmarking is about defining consistent standards

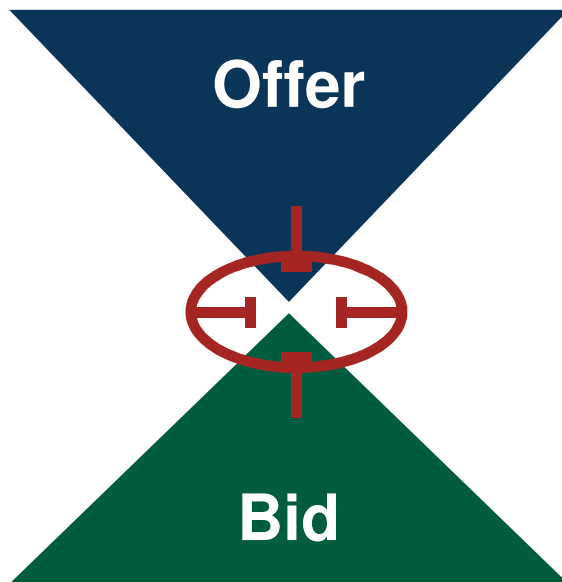
**Normalization:** the art and science of converting all the dimensions of each unique transaction to a common standard, for price comparison.

- Time of trade
- Delivery timing
- Quality
- Volume
- Location
- Terms of trade
- Credit & risk



# Firm bids and offers help price discovery

A Platts assessment is an exclusive process, zeroing in on the tradable value



- Platts does not average high-ball or low-ball reported deals, or subjectively selected deals, or volume weight deals
- Platts only uses bid, offer and deal information tested openly in the active marketplace
- Deals must be repeatable, verifiable and arms length
- Market-on-close philosophy takes a snapshot at time of assessment

# Platts Pricing Philosophy

- Pricing at key stages in the value chain provides best transparency
- Freights, bulk alloys, scrap are upstream leading indicators
- Daily pricing wherever possible, or else weekly/twice-weekly
- Price surveys are consistent, rigorous
- Platts editors pre-trained in pricing, become experts in their markets
- Separate Platts Compliance Department reviews
- The Platts methodology has stood the test of time and been applied across many commodities

# Copper

- Copper touched all-time record over \$10,000/mt but pulled back
- JP Morgan shaved 2011 forecast, Barclays sees destocking
- Stock rise amid deficit attributed to supply issues, but demand a ?
- Fewer copper imports into China, amid high inventory, rising output
- Mine supply still low, but scrap supply increasing
- Danger of substitution: many say pullback to below \$9,000 needed to trigger demand recovery
- Barclays sees demand return in Q2, Standard Bank H2 at earliest

## Copper Seen Losing Some Luster

LME copper cash settlement, \$/mt



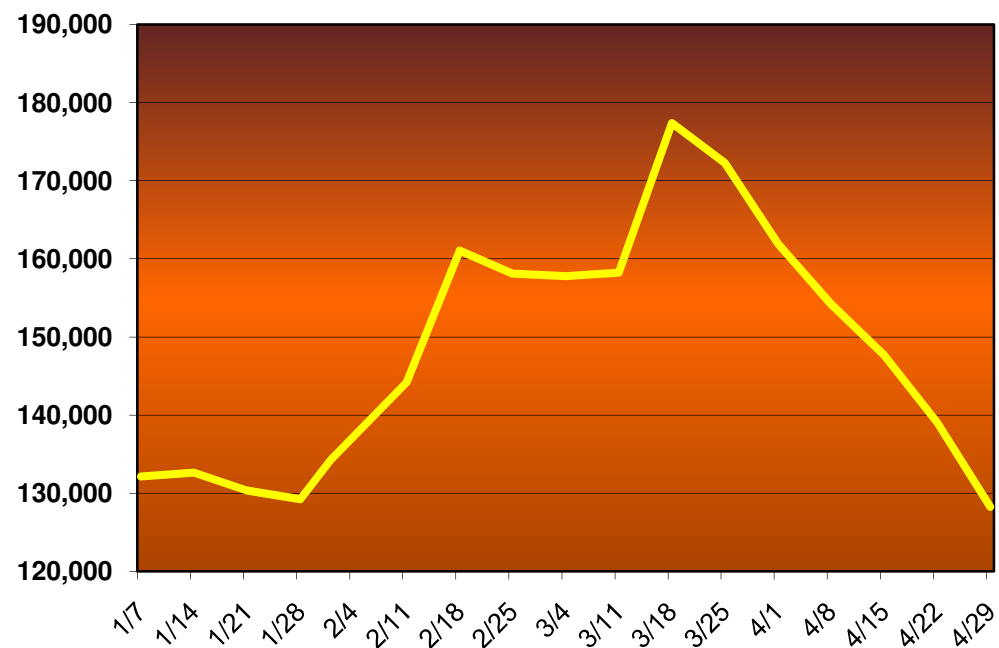
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# China Critical to Copper Equation

- China hand to mouth due to high copper prices, tight credit
- LME/Shanghai arbitrage not favorable; recent price drop seen helping to boost China premiums
- Infrastructure, transmission projects continue, but government inflation-cooling stronger than expected
- Analysts estimate between 750,000 mt and 1 million mt in private, bonded warehouses
- Current de-stocking period expected to end during summer
- But power rationing could extend that time

## Market Awaiting China's return

Shanghai stocks in mt

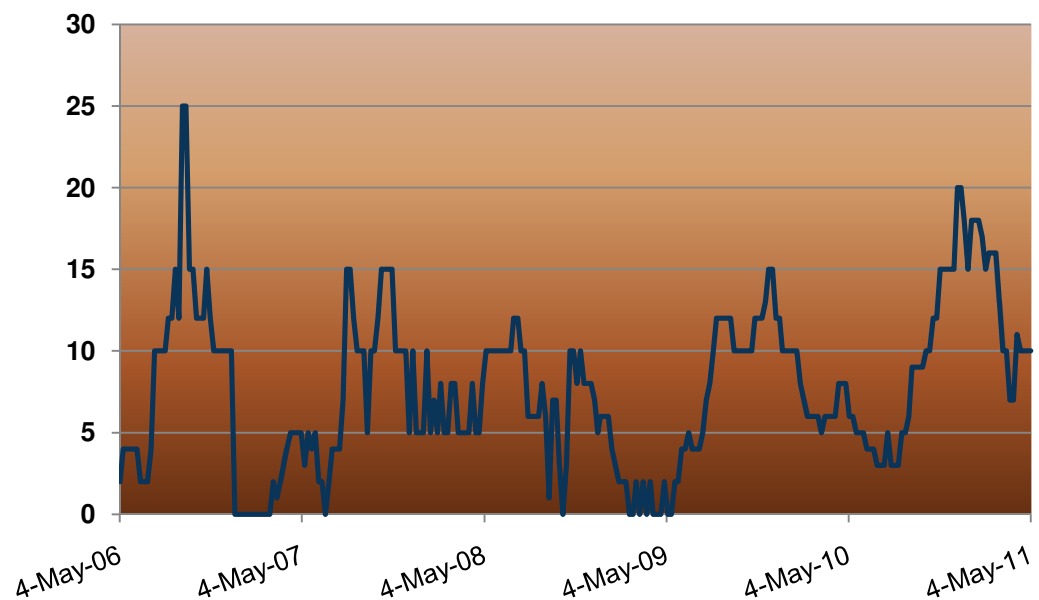


# Copper Scrap

- China's overall buying of copper scrap weak due to high prices
- US mills have returned to the high-grade scrap market
- Bare Bright (98-99% pure copper) highest grade of scrap
- Used with, or instead of, cathode for wire and cable
- Steadiest in terms of volatility, least likely to decline in value
- Like other grades, has dropped in value due to downturn in construction

## US Copper Bare Bright Scrap

Platts US Bare Bright weekly discount to COMEX spot, ¢/lb



Platts has been assessing 3 grades of copper scrap in the US since 1992

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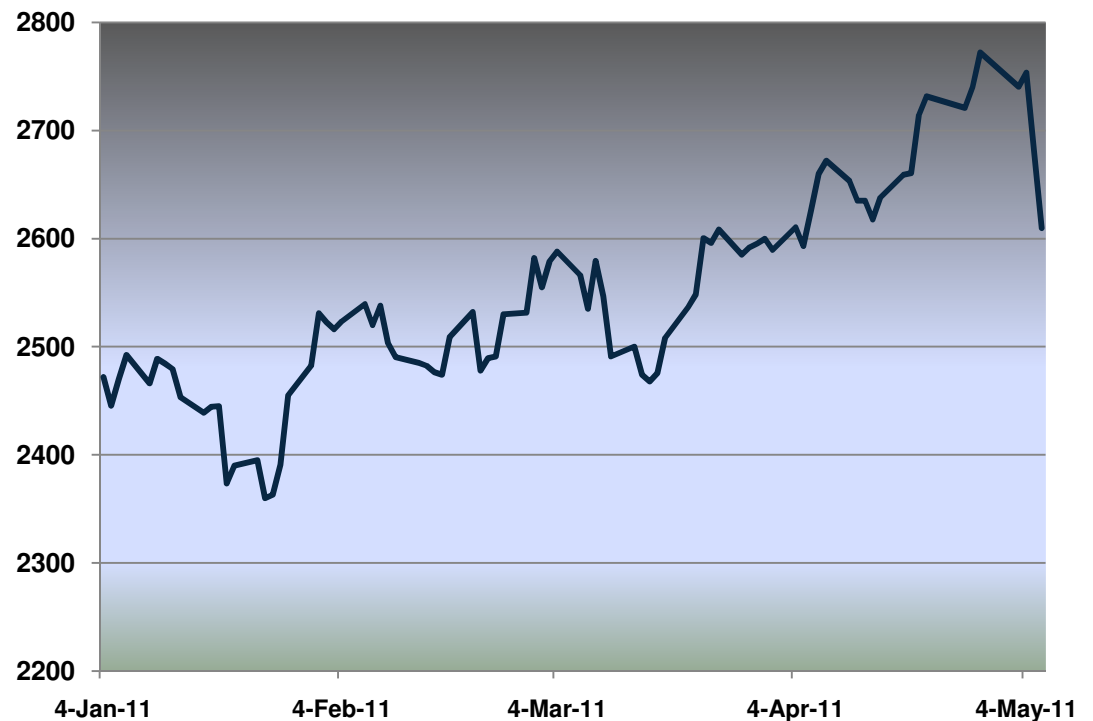
# Platts Aluminum Coverage

- Platts assesses prices from alumina through billet
- Platts US Midwest Transaction price assessment a benchmark for 25 years
- Other P1020 ingot premium assessments for key trading hubs (eg, CIF Japan spot and quarterly, duty-paid and unpaid Europe)
- 8 secondary aluminum alloy prices (eg. US A380, 356, Europe 226, China ADC12)
- 10 US aluminum scrap price assessments twice-weekly or weekly
- Daily alumina pricing started in August 2010

# Aluminum

- Analysts forecast 2011 average price \$2,300-2,600/mt
- 4.6 million mt of aluminum in LME warehouses, most in financing deals
- Energy prices supportive, but inflation could make financing deals less attractive
- Alcoa sees 12% rise in global demand this year; others 7.5%
- Up to 20% copper replaced with aluminum, for +1.3 million mt (Alcoa)
- Alcoa expects a 945,000 mt 2011 Western World surplus; analysts 1.5 million mt surplus
- China to see 700,000 mt deficit
- ETFs expected to need backstopping

**Aluminum Rangebound by Financing, Energy, Inflation**  
LME cash settlement price, \$/mt

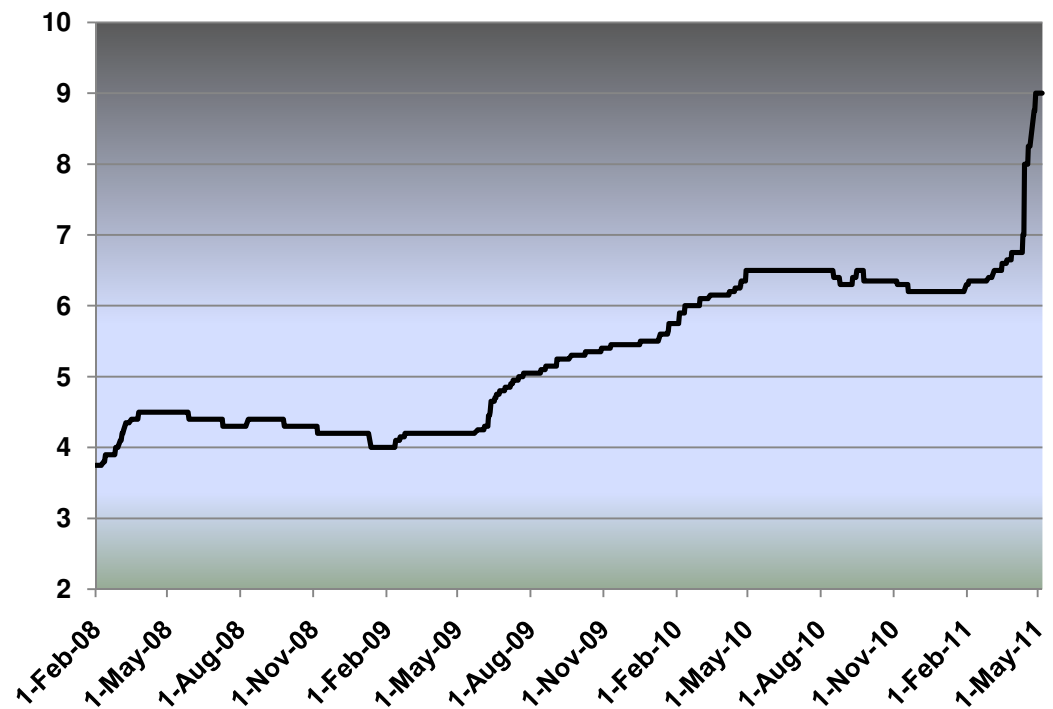


# Primary Aluminum Premiums

- US ingot premium hit 25-year high of 8¢ on Apr. 14, then 9¢ on Apr. 28, near all-time record 9.5¢
- Financing deals, warehouse incentives have kept aluminum off the spot market
- Lead times for Detroit out to February, other WHs 8 weeks
- Incentives of \$150/mt seen maintaining, but narrowing LME cash-to-15-mo. contango
- Exports going to Europe, South America; Brazil prep for World Cup and Olympics cutting imports
- Fuel surcharges (40%), trucking issues again playing a role

## US Aluminum Premium Supported by Financing Deals

Platts US Midwest Transaction Premium, ¢/lb

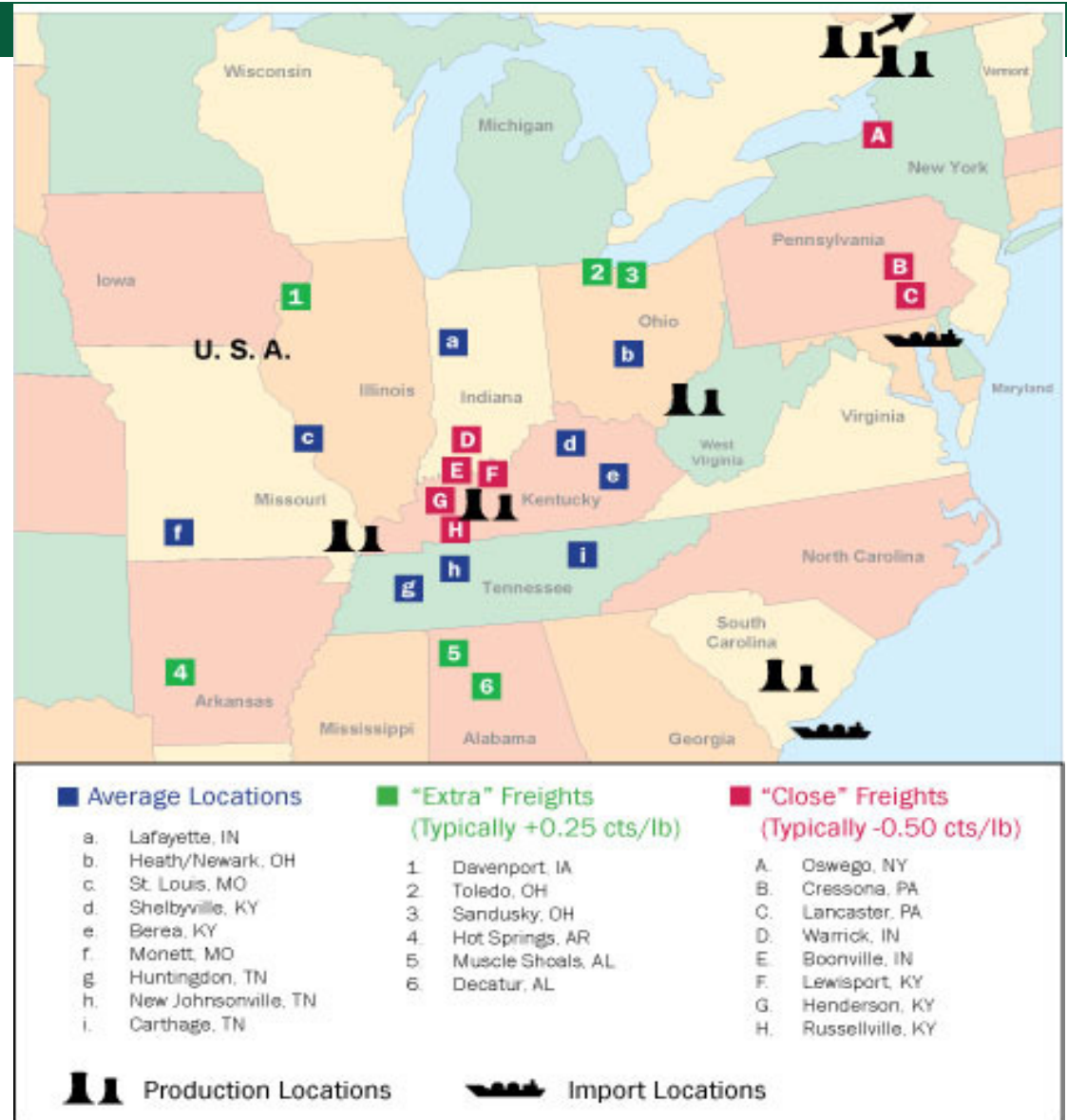


## Current Platts P1020 premium specifications

- **Grade**: 99.7% P1020/A7E ingot, sow or T-bar, LME deliverable
- **Volume**: Minimum full truckload, typically 100-500 mt
- **Timing**: Assessments reflect delivery within 7-30 days forward from date of publication
- **Basis and location**: Basis delivery US Midwest, with typical freight defined as 1.25-1.75¢/lb (close or extra freights are normalized)
- **Transportation**: Truck or rail
- **Credit terms**: Assessments reflect net-30 days from delivery (net-cash, net-5, and net-10 are normalized using typical LIBOR+ rates, or prevailing net-cash versus net-30 spreads)

# Platts P1020 Normalization – Location and Freight

- Platts uses a matrix of typical delivery locations, and categorizes these locations as “average,” “close” and “extra” freights
- Price levels are adjusted for assessment purposes based on the premium or discount for each location
- Feedback constantly sought as these relationships change

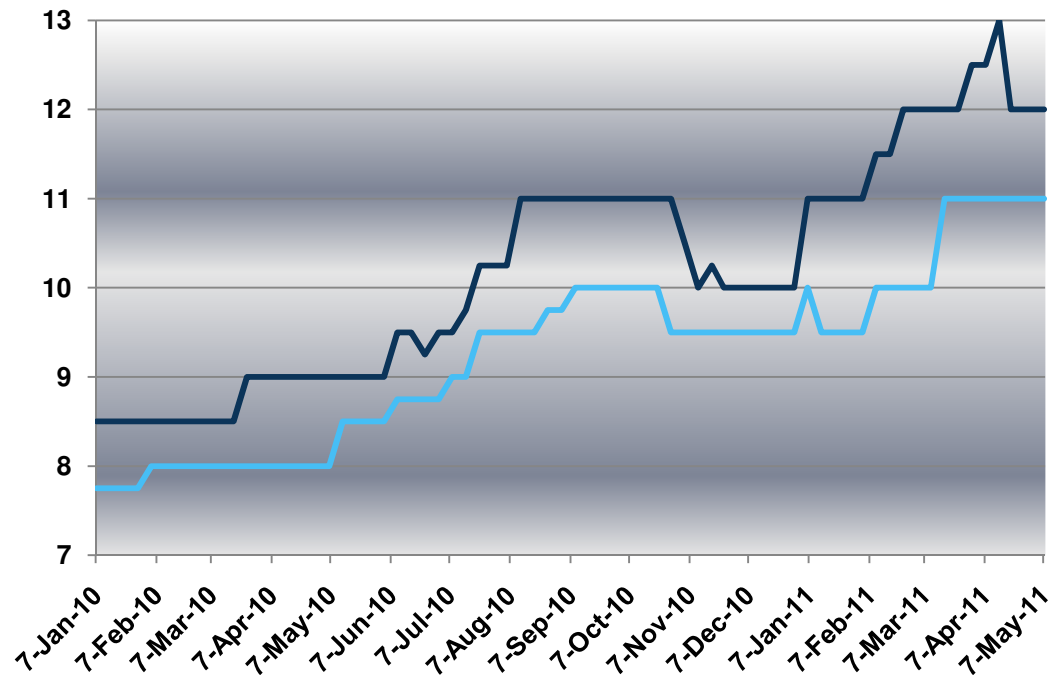


# Aluminum Billet

- Most billet priced basis Platts US Transaction price plus fixed or floating upcharge
- Contracts for 2011 were 10-12¢ plus P1020
- Platts has assessed the 6063 spot billet upcharge since 1996
- Spot billet began rising last year, hit 7-year high this year as needs exceed contracts
- New supply from Middle East delayed, expected in July
- Some consolidation, restarts seen among extruders

## US Aluminum Spot Billet at Seven-Year High

Platts US 6063 Billet Upcharge Range, ¢/lb

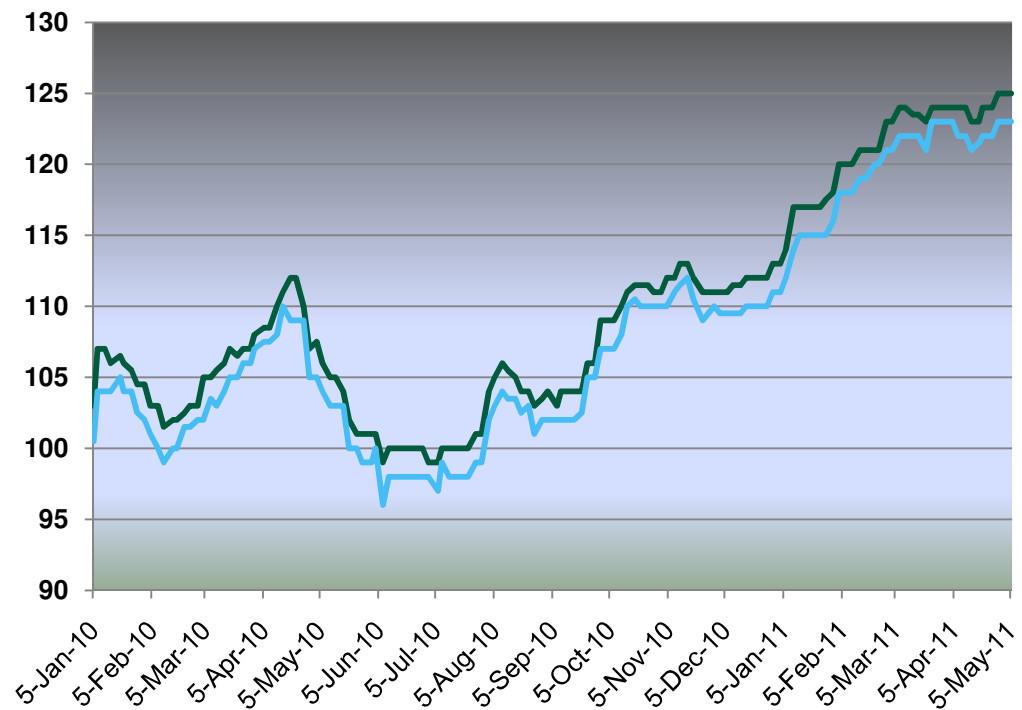


# Secondary Aluminum Automotive Alloys

- Platts US A380 at \$1.22-1.24/lb  
May 9, trading \$1.21-1.25 since  
March, back to August 2008 level
- High fuel prices a supportive  
factor, trucking an issue
- Scrap price spreads tight, despite  
the May 6 LME plunge
- Scrap flow not yet back to pre-  
crisis levels
- Platts scrap old sheet price  
trading at 80-85¢/lb, hit 3-year  
high in February of 83-85¢
- Dealers report healthy Chinese  
export market, providing  
competitive pressure to US  
smelter buyers

## US A380 Holds within Recent Range

Platts US A380 range, delivered Midwest, ¢/lb



## Japan crisis fallout

- Some Japanese automakers/auto components manufacturers ask metals suppliers to push back April shipments to May
- Japan's shipments of secondary alloys for diecastings in March were down 16.6% year on year at 36,622 mt
- US diecaster volumes expected to dip 5-7% in May/June amid Japan auto parts shortage, mainly computer sensors
- But some report large shipping weeks due to Big Three running strong
- Honda cuts output by 50% through June 30 in US/Japan, some plants coming back earlier
- Toyota suspending US operations on Mondays/Fridays through June 3, and will run production at 50% Tuesdays, Wednesday and Thursdays
- General Motors unaffected by shortage amid ample sensor supply, may see some effects in June/July
- "Worst is yet to come:" IHS Automotive
- "Any lost volume is likely to be made up later this year:" AutoNews Now
- US alloy producers expect strong autumn market

## Magnesium Smaller, Less Analyzed Than Other Metals

	Magnesium	Aluminum	Steel
Total Global Production	~750,000 mt	44.76 million mt	1.414 billion mt
Total Consumption	~670,000 mt	44.515 million mt	1.359 billion mt
# of Western & CIS Producers	8	~30	~100
Production chg Since 2000	+70%	+16%	+66%

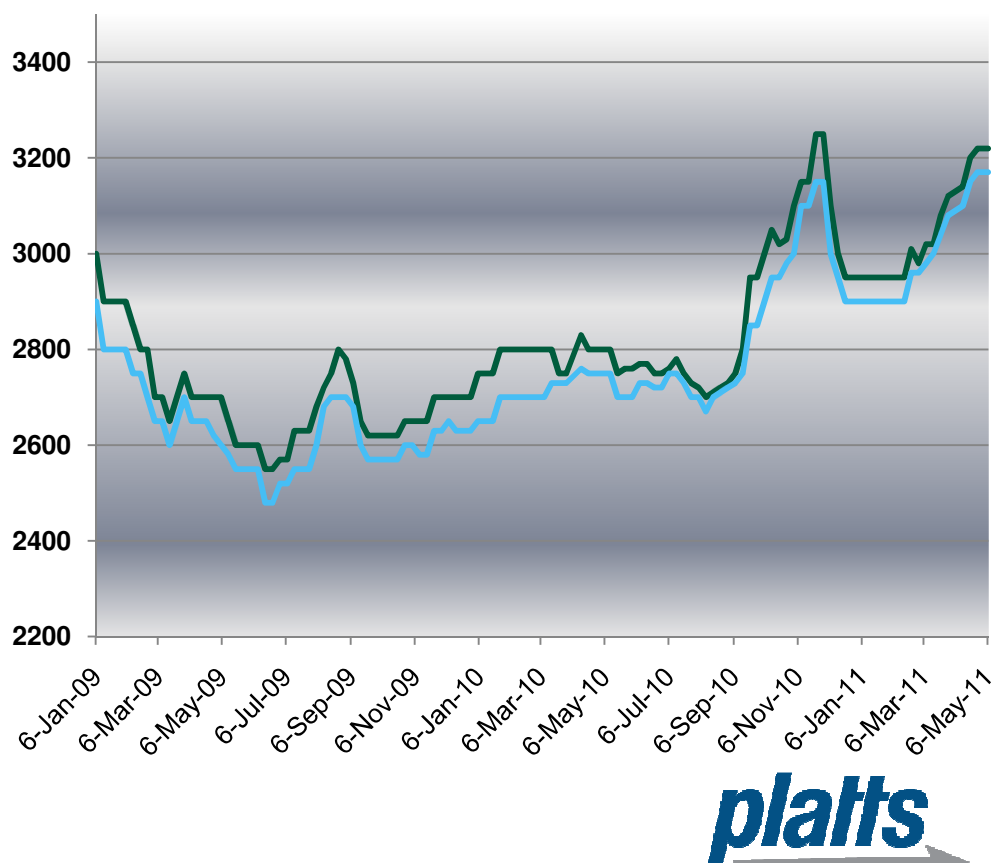
Magnesium world market the size of some single large aluminum smelters

# Magnesium Dominated by China

- China is believed to have 1.3 million mt of capacity, dwarfing rest of world
- China's capacity expected to quadruple in the next five years
- But China has announced plans to close all plants with 15,000 mt/year or less
- Chinese magnesium prices have risen following coal, ferrosilicon
- Chinese diecast alloy pricing follows pure magnesium

## Chinese Magnesium Prices Have Rebounded

Platts weekly 99.8% Mg, FOB China



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## Magnesium Trends

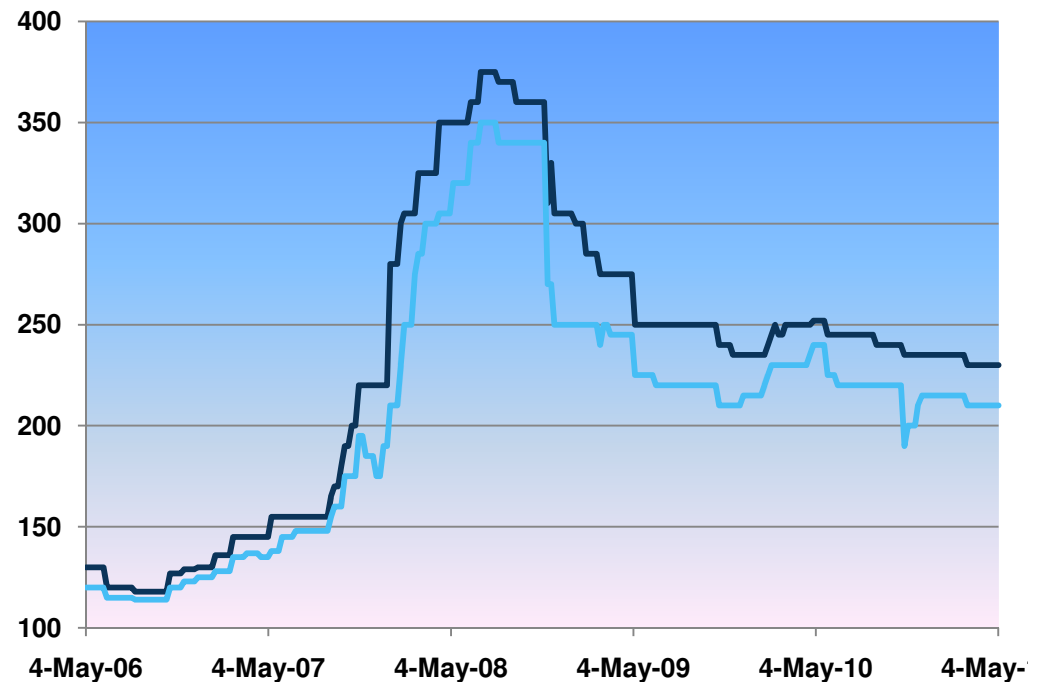
- US Magnesium, largest producer outside China, is speeding expansion to 63,500 mt/year, increased output available starting in June
- N. America demand to rise 7%, global demand up 9% in 2011 (US Magnesium)
- Chinese magnesium still blocked from US, Russian duties revoked
- Magnesium scrap supply tight
- Rebound in titanium demand is eating into magnesium supply (ATI Utah plant, may restart Oregon; Russian captive)
- Diecasters expect auto slowdown to last into June, pent-up demand afterward

# Magnesium in Automotive

- Some automakers avoided magnesium due to concerns about supply
- Magnesium slowly seeing gains not just with GM but also Japanese
- World's largest diecaster Meridian expects near double-digit Mg growth this year
- Renewed interest for magnesium in instrument panels, plus powertrain
- Ford magnesium inner rear lift gate for Lincoln MKT saved 20 lb vs steel
- New Honda applications coming in 2012-2014
- After lull, GM has new programs for 2013-2015

## Magnesium Diecast Alloy Stable, Subject to Swings

Platts US Diecast Transaction weekly range



# Questions?

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