

# **A TALE OF TWO CITIES**

**Toronto Geological  
Discussion Group**

**November 8, 2012**

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Source: Canoe.ca



Messrs Munk and Regent. Source: Ottawa Citizen



Tye Burt. Source: Vancouver Sun

# Month-to-month changes 1960 - 2012

% change in the level of the TSX's gold sub-index =

0.4% *(t-stat = 1.25)*

plus

0.836 x % change in the level of the TSX Composite Index *(t-stat = 10.12)*

plus

0.085 x % change in the price of gold in Canadian dollars *(t-stat = 1.53)*

# Month-to-month changes October 2008 - 2012

% change in the level of the TSX's gold sub-index =

0.7% *(t-stat = 0.56)*

plus

0.882 x % change in the level of the TSX Composite Index *(t-stat = 2.31)*

minus

0.128 x % change in the price of gold in Canadian dollars *(t-stat = -0.77)*

"All 500 S&P companies have the same chairman and his name is Ben Bernanke"

Source: Fidelity Global Strategies Fund, as quoted by London's Financial Times (September 11, 2012).



# Month-to-month changes 1960 - 2012

% change in the level of the TSX's diversified (i.e. non-precious) mining index =  
-0.1% *(t-stat = -0.66)*

plus

1.115 x % change in the level of the TSX Composite Index *(t-stat = 24.46)*

plus

0.356 x % change in the price of metals\* in Canadian dollars *(t-stat = 1.53)*

\*An unweighted average of changes in Al, Cu, Ni & Zn prices, with Al excluded after Alcan was delisted October 2007

# Month-to-month changes October 2008 - 2012

% change in the level of the TSX's diversified mining index =

-1.2% *(t-stat = 0.91)*

plus

0.653 x % change in the level of the TSX Composite Index *(t-stat = 1.42)*

plus

0.784 x % change in the price of metals\* in Canadian dollars *(t-stat = 4.24)*

\*An unweighted average of changes in Cu, Ni & Zn prices





Source: [blogspot.com](https://www.blogspot.com)





Source: CityTV



Source: TMX

# Mixed signals as miners battle tougher times

*Sydney Morning Herald*, October 13, 2012

**Boart Longyear**... last week dumped its respected chief executive after a surprise profit warning a few weeks earlier. ...the canary in the mine is the low level of capital raised by junior explorers, which has remained depressed for several years now, and is forcing them to curtail spending. The majors, too, are harbouring cash.

## Thompson Creek to axe 100 jobs at Ohio mine

*Proactiveinvestors.com*, October 3, 2012

**Thompson Creek Metals Co.** (TSE:TCM) said Wednesday it would halt stripping activity at its Ohio molybdenum mine and slash 100 jobs, as the company seeks to boost its balance sheet and conserve cash.





London, September 2012 (photo by Raymond Goldie)



Source: [interactivebrokers.com](https://www.interactivebrokers.com)



Source: [info.goldavenue.com](https://www.info.goldavenue.com)

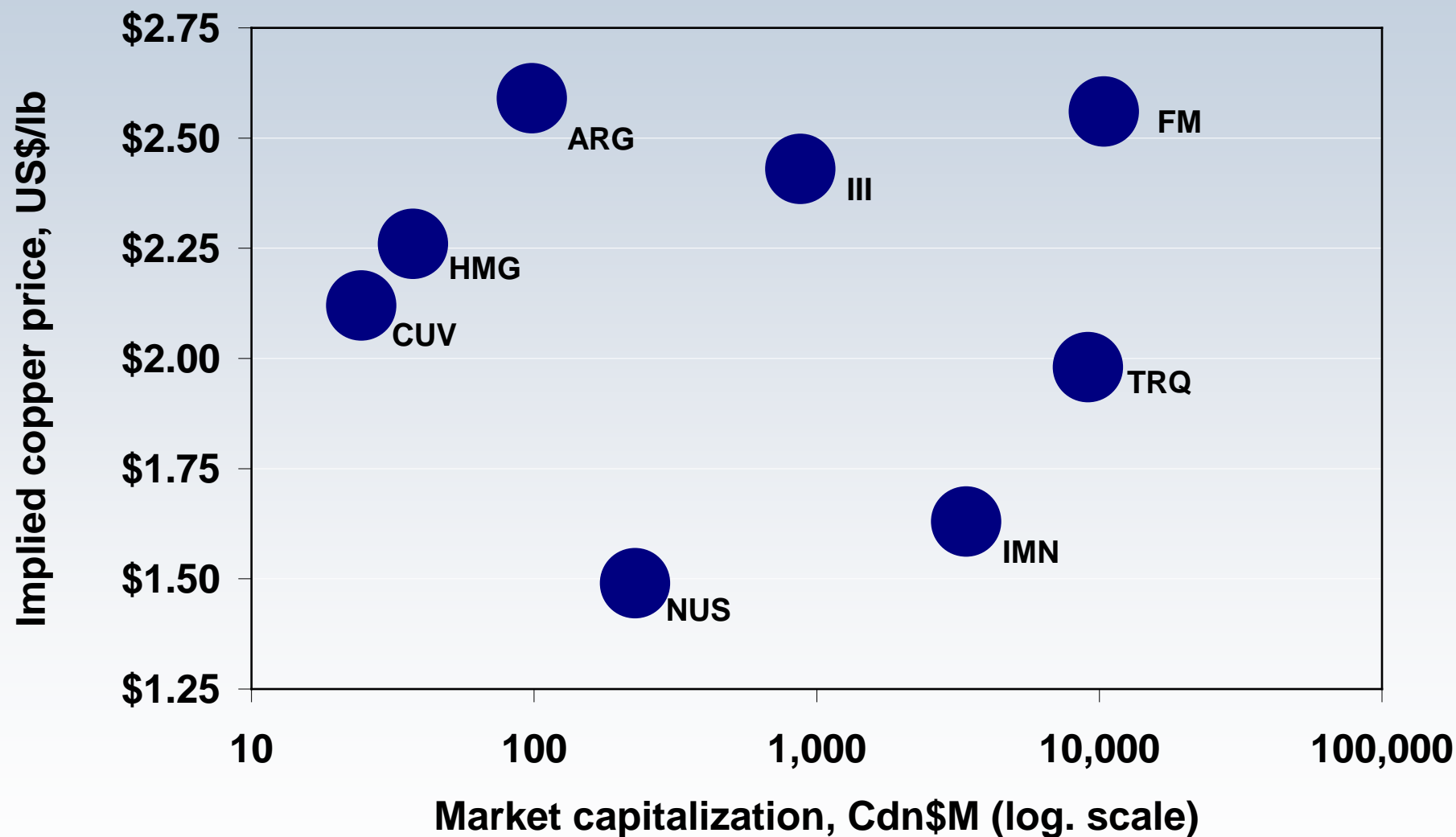


# THE LONDON METAL EXCHANGE, LME



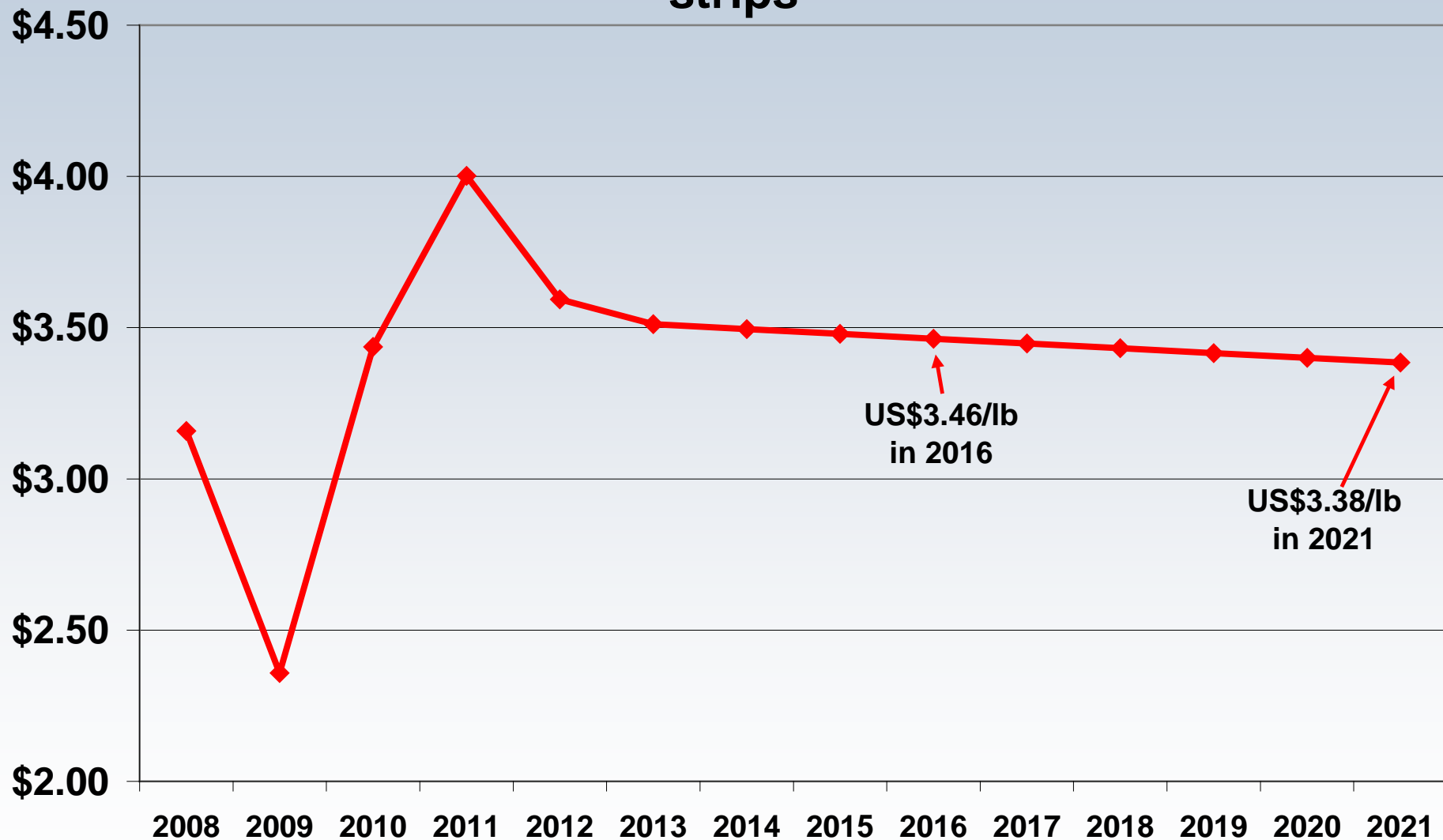
Source: Thomson Reuters

# IMPLIED COPPER PRICE vs MKT. CAP.



Source: Salman Partners' estimate of the price of copper in 2013 (assumed to rise every year thereafter at the rate of US CPI inflation) that would be required to make the company's Net Asset Value equal to its share price.

# Copper Prices, US\$/lb, as implied by LME forward strips



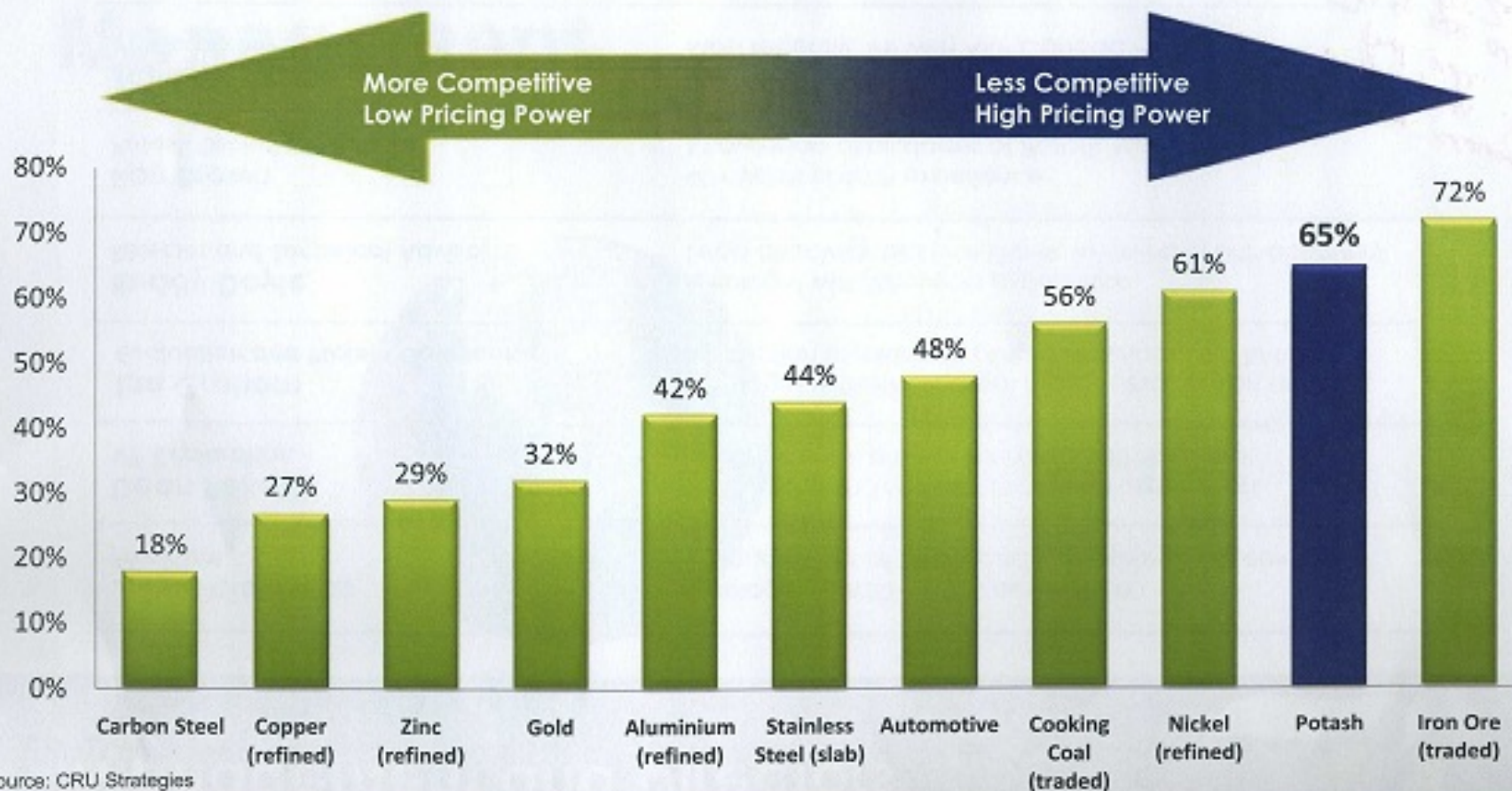
Source: LME, interpolation by Salman Partners inc., using exponential least-squares regression analysis

IS SUPPLY MANAGEMENT  
RELEVANT TO THE MINERALS  
THAT THIS COMPANY  
INTENDS TO PRODUCE?

# Comparative Consolidation Rates



Share of the total production which is attributed to the top 5 companies in the industry.



TSX.V: WPX

FSE: AHE



Bill Doyle. Source: Saskatoon StarPhoenix

# BHP Billiton's commodity marketing philosophy:

"to run at full capacity and take the market prices"

Source: M. Kloppers, CEO, BHP Billiton, as quoted by The Globe and Mail.



Source: Bloomberg





Source: NBC News. We note that the Olympian volley-ball player apparently is not standing on a podium

# China's moves to shut inefficient, dirty plants

# The Rare Earths



SCANDIUM



LANTHANUM



CERIUM



THULIUM



PRASEODYMIUM



NEODYMIUM



EUROPIUM



GADOLINIUM



TERBIUM



DYSPROSIUM



HOLMIUM



ERBIUM



YTTERBIUM



LUTETIUM

ALLVOICES

Source: [windpowerstockstowatch.blogspot.com](http://windpowerstockstowatch.blogspot.com)

# RARE EARTHS DEAL

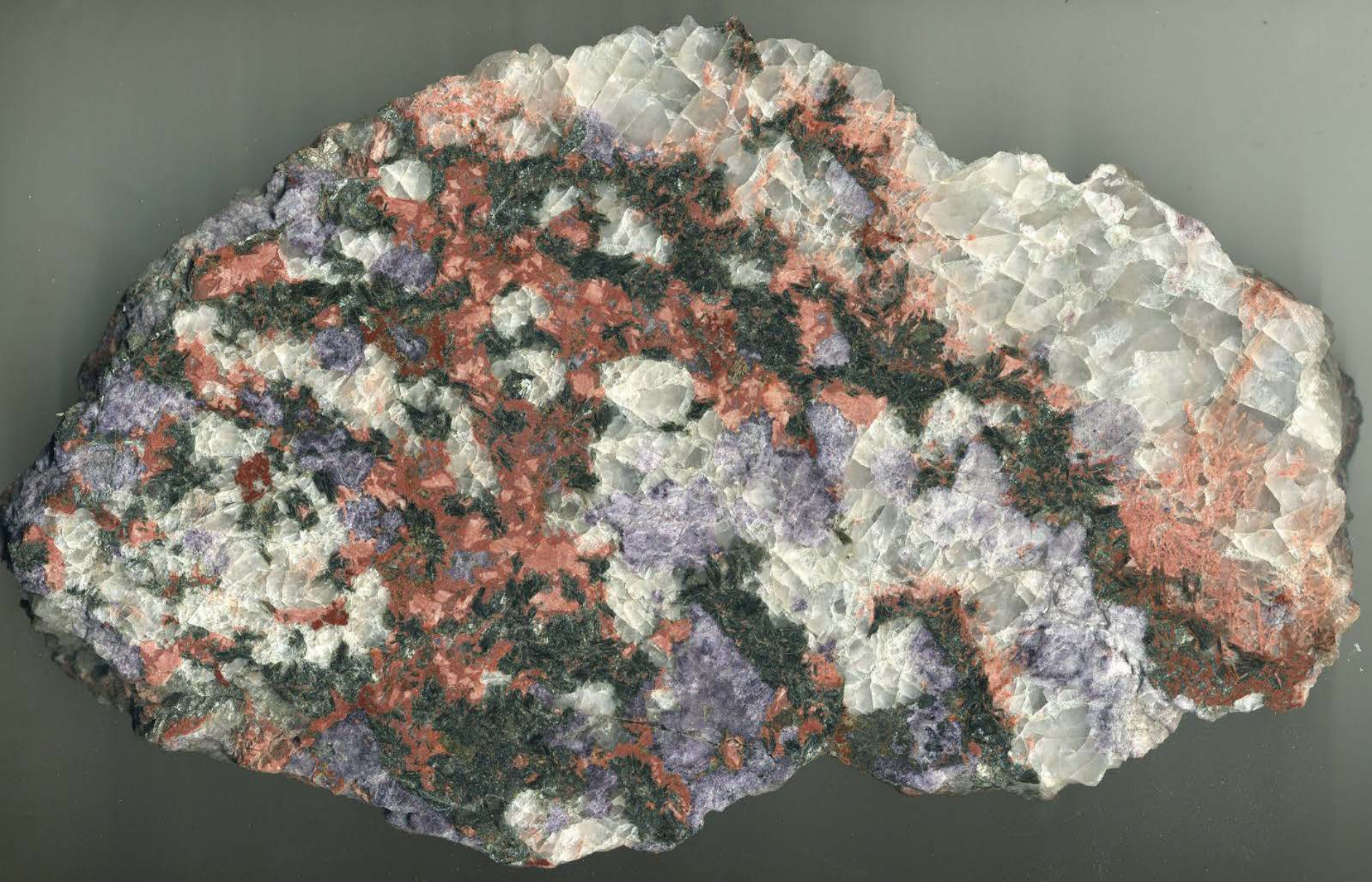
SASKATOON, SASKATCHEWAN, Jan 31, 2011  
(MARKETWIRE via COMTEX) --

**Great Western Group Ltd.** (TSX VENTURE: GWG) announces that it has signed a Letter of Intent with **Electron Energy** of Landisville, Pennsylvania to supply samarium metal, gadolinium metal and samarium-cobalt alloys used by EEC to manufacture magnets and magnet systems.



Source: Syngenta





Source: Raymond Goldie

## Who We Are/What We Do

**Brush Wellman Beryllium Products** is the premier integrated global producer of beryllium-based metals & metal matrix composites. We provide high-performance metals & metal-matrix composites for mission-critical commercial, aerospace, medical, research & engineering applications that require the highest levels of performance.

# SMELTER/REFINERY SURPLUS



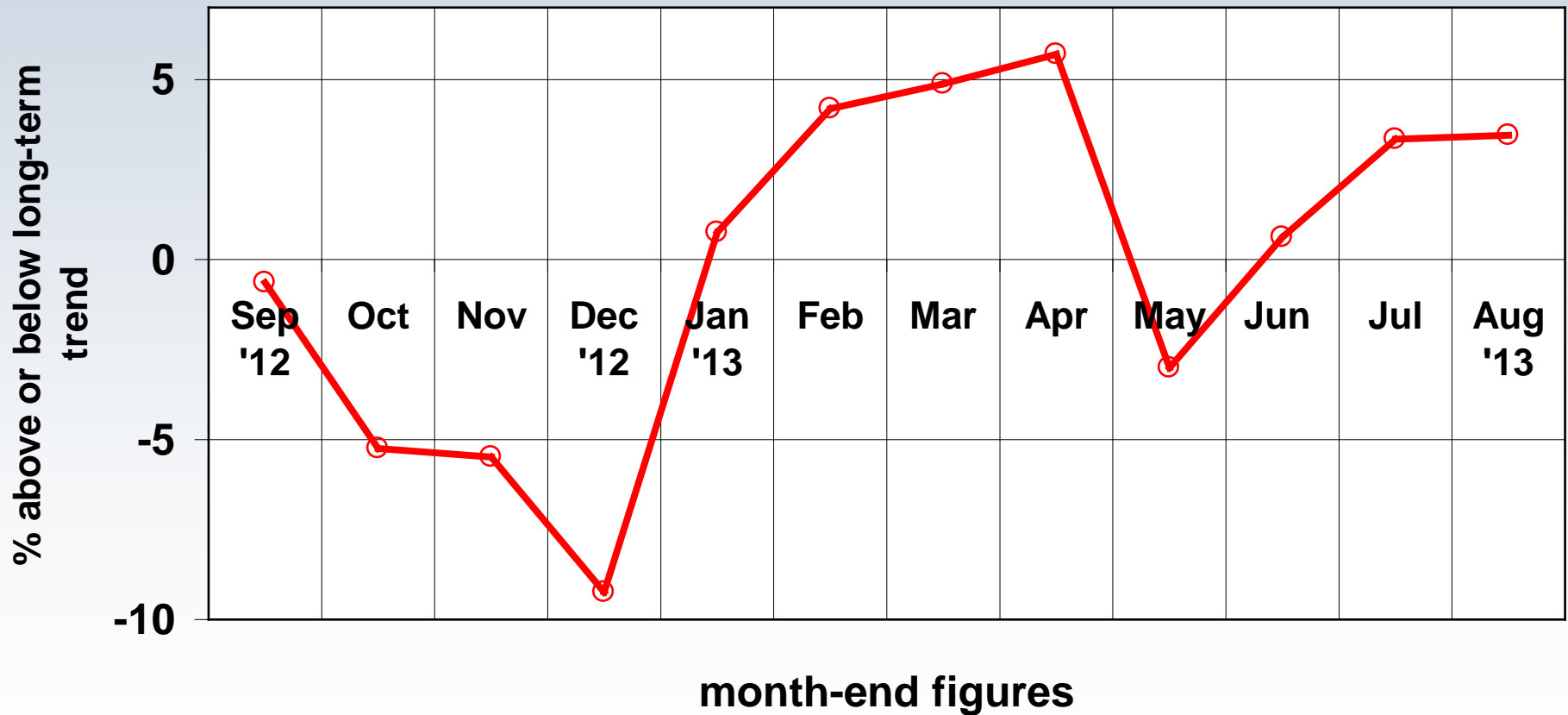


Copper pipes. Source: etoro.com

# FORECASTING METHOD #1: TECHNICAL ANALYSIS

# PROJECTED SEASONAL TRENDS IN THE PRICE OF COPPER

(as projected by Statistics Canada's "X-11" program)

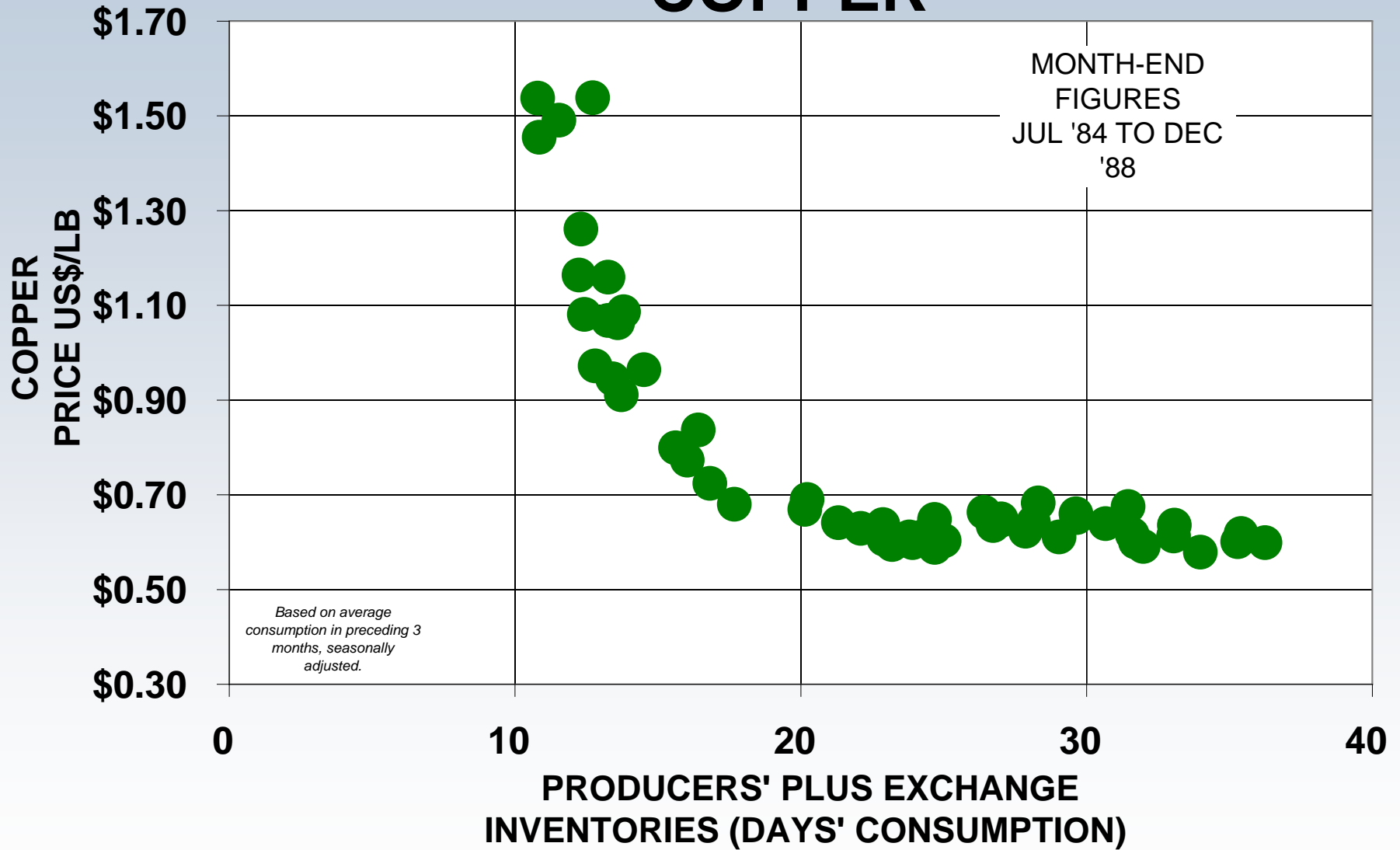


Source: LME, calculations by Salman Partners Inc.

# FORECASTING METHOD #2: FUNDAMENTAL ANALYSIS

"pinch-point"™ chart for

# COPPER



Source: ABMS, CRU, ICSG, WBMS, GFMS; adjustments and estimates by Salman Partners Inc. "Pinch-point™" is a trademark registered to Raymond Goldie

“pinch-point”<sup>TM</sup> is a  
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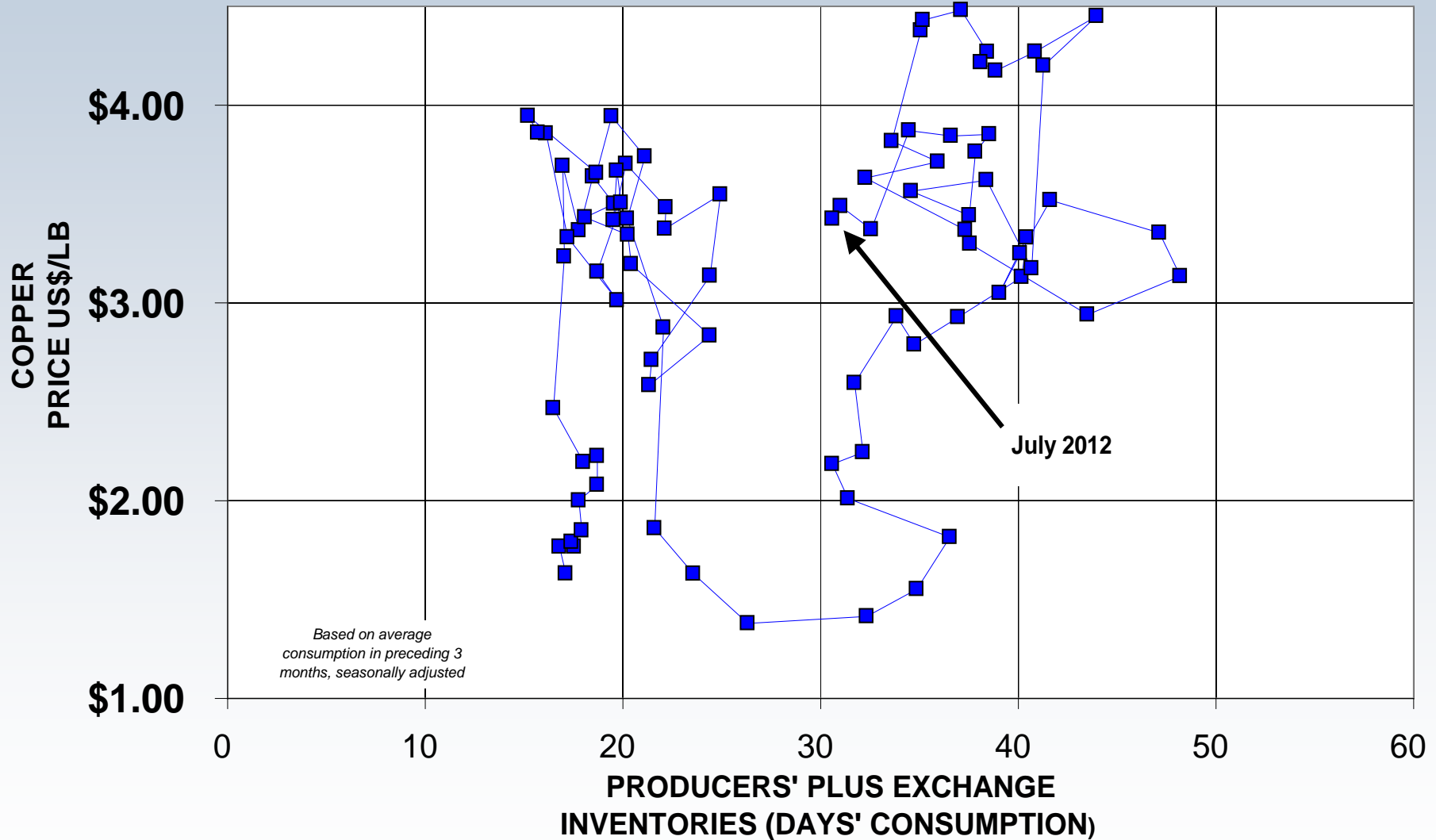


Source: [nerve.com](http://nerve.com)

"pinch-point"™ chart for

# COPPER

MONTH-END FIGURES  
JUNE 2005 TO JULY  
2012



Source: ABMS, CRU, ICSG, WBMS, GFMS; adjustments and estimates by Salman Partners Inc. "Pinch-point™" is a trademark registered to Raymond Goldie



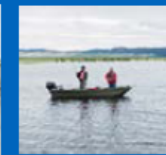


Source: [b-protected.com.au](http://b-protected.com.au)



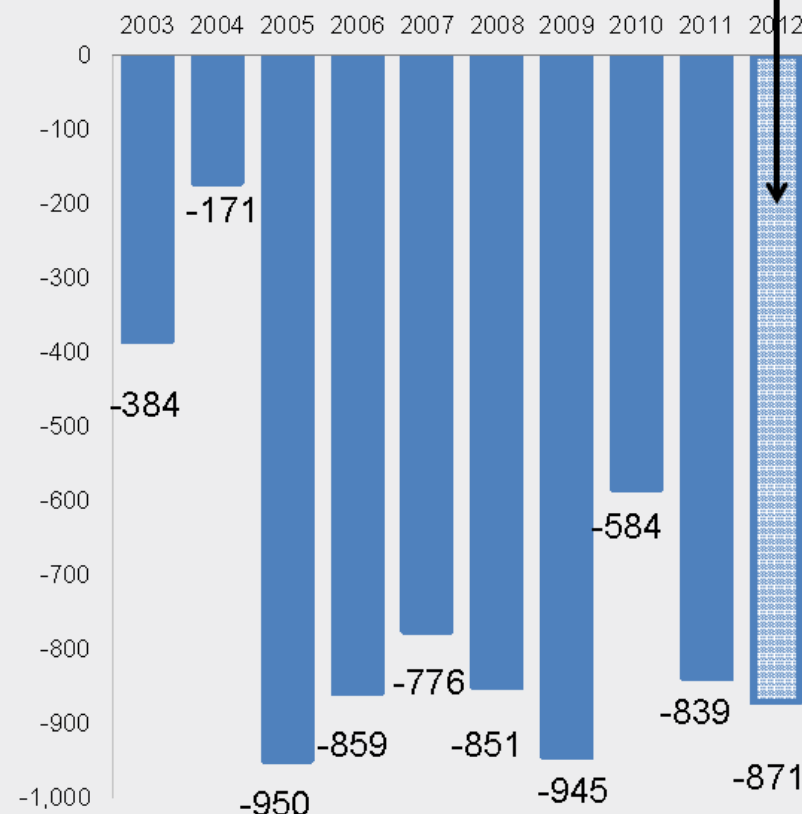
Source: made-in-china.com

# Concentrate Production Disruptions - are Continuing



thousand tonnes contained copper

To End September 2012 Guidance



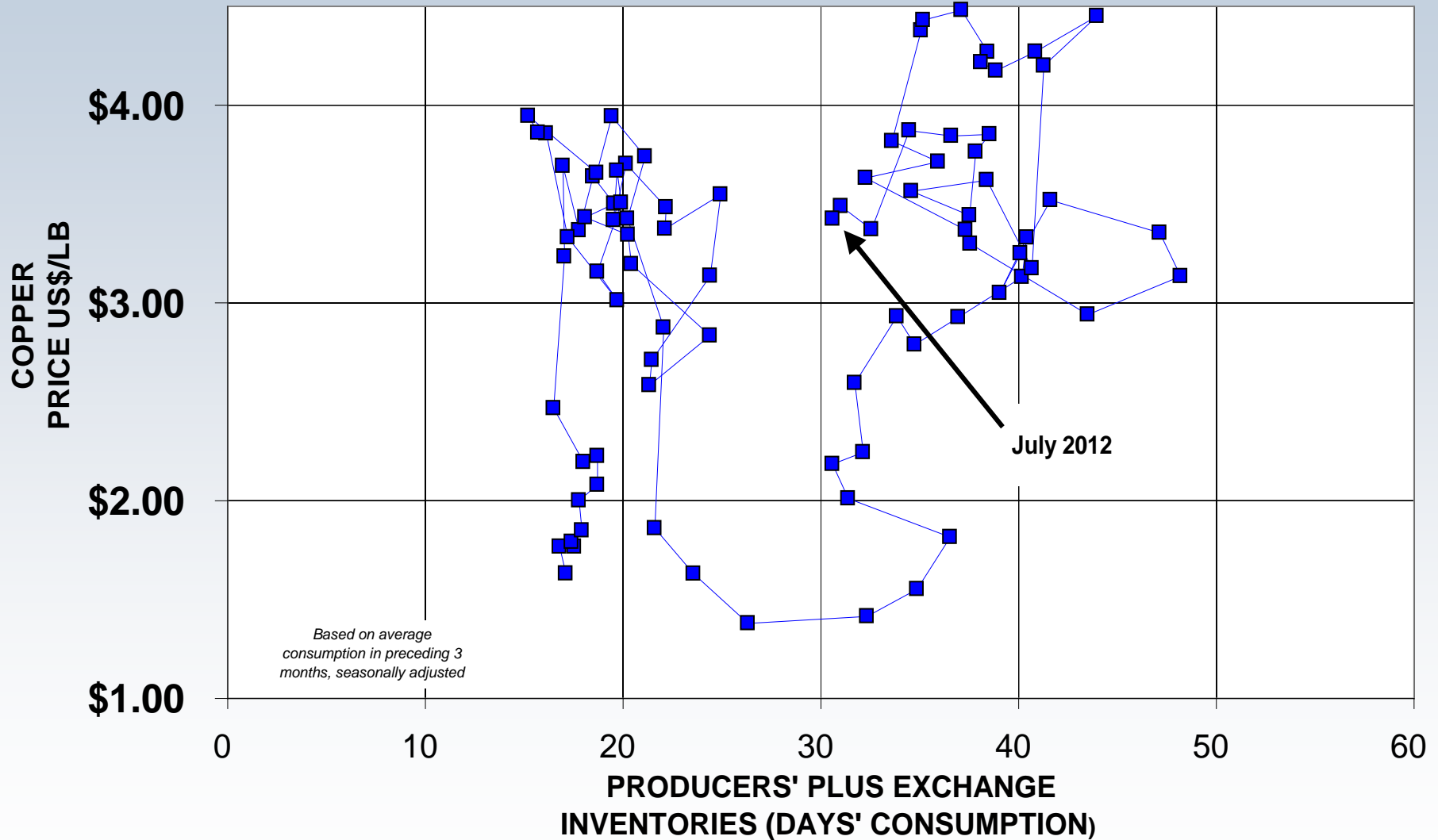
Source : ICSG, Wood Mackenzie, Brook Hunt, Teck, Company Reports

- Production disruptions to mine production continue into 2012.
- Before 3<sup>rd</sup> quarter guidance had been released disruptions already exceeded our estimate of 5%.
- Mine production was to have increased 1.2 million tonnes in 2012, we are now likely to get less than half. In 2011 no increase in mine production.
- For 2013 we are projecting an increase of 1.8 million tonnes of new production.
- Lower grades have increased the unpredictability of production forecasts.

"pinch-point"™ chart for

# COPPER

MONTH-END FIGURES  
JUNE 2005 TO JULY  
2012

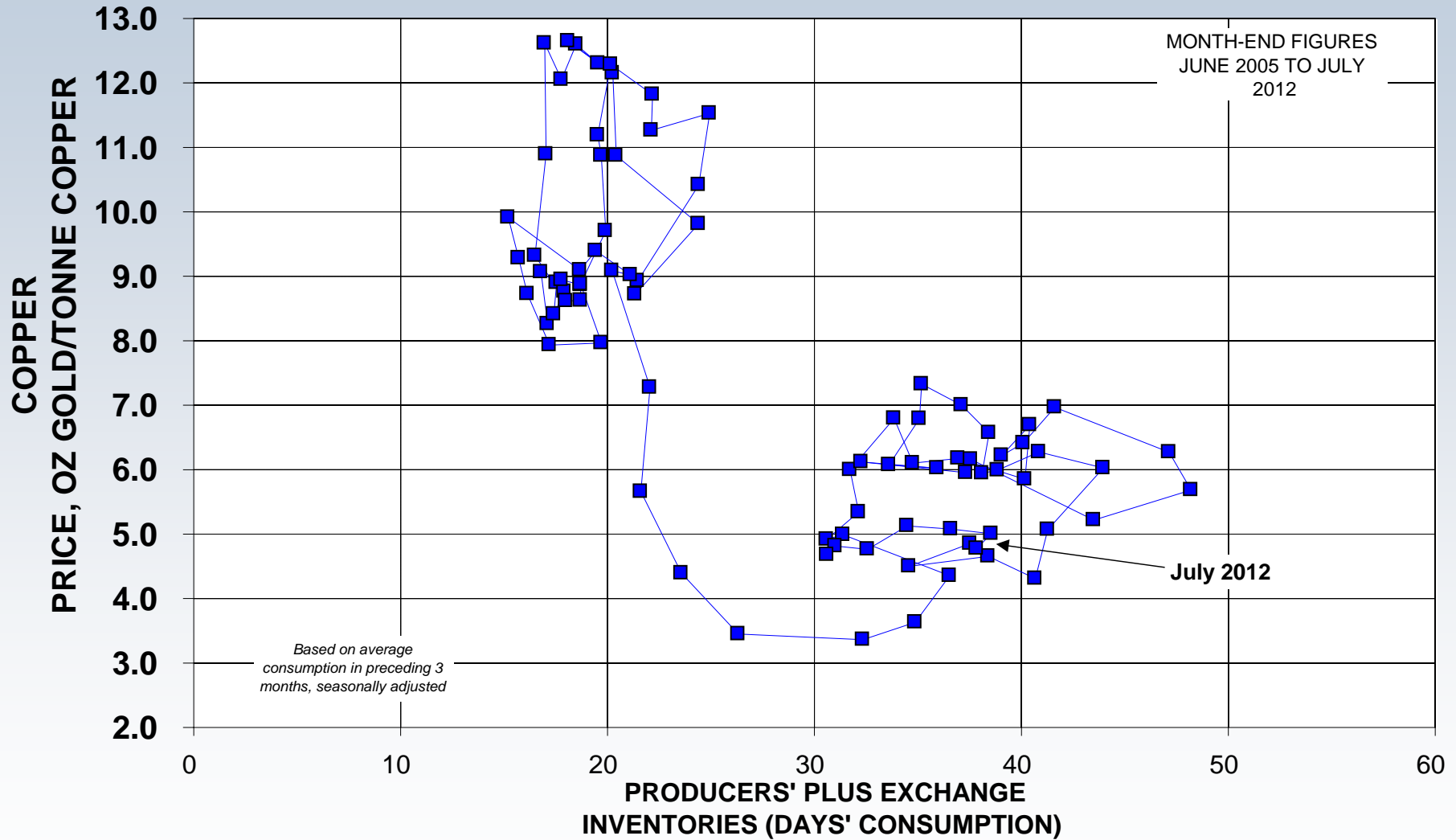


Source: ABMS, CRU, ICSG, WBMS, GFMS; adjustments and estimates by Salman Partners Inc. "Pinch-point™" is a trademark registered to Raymond Goldie

“Only gold is money”

"pinch-point"™ chart for

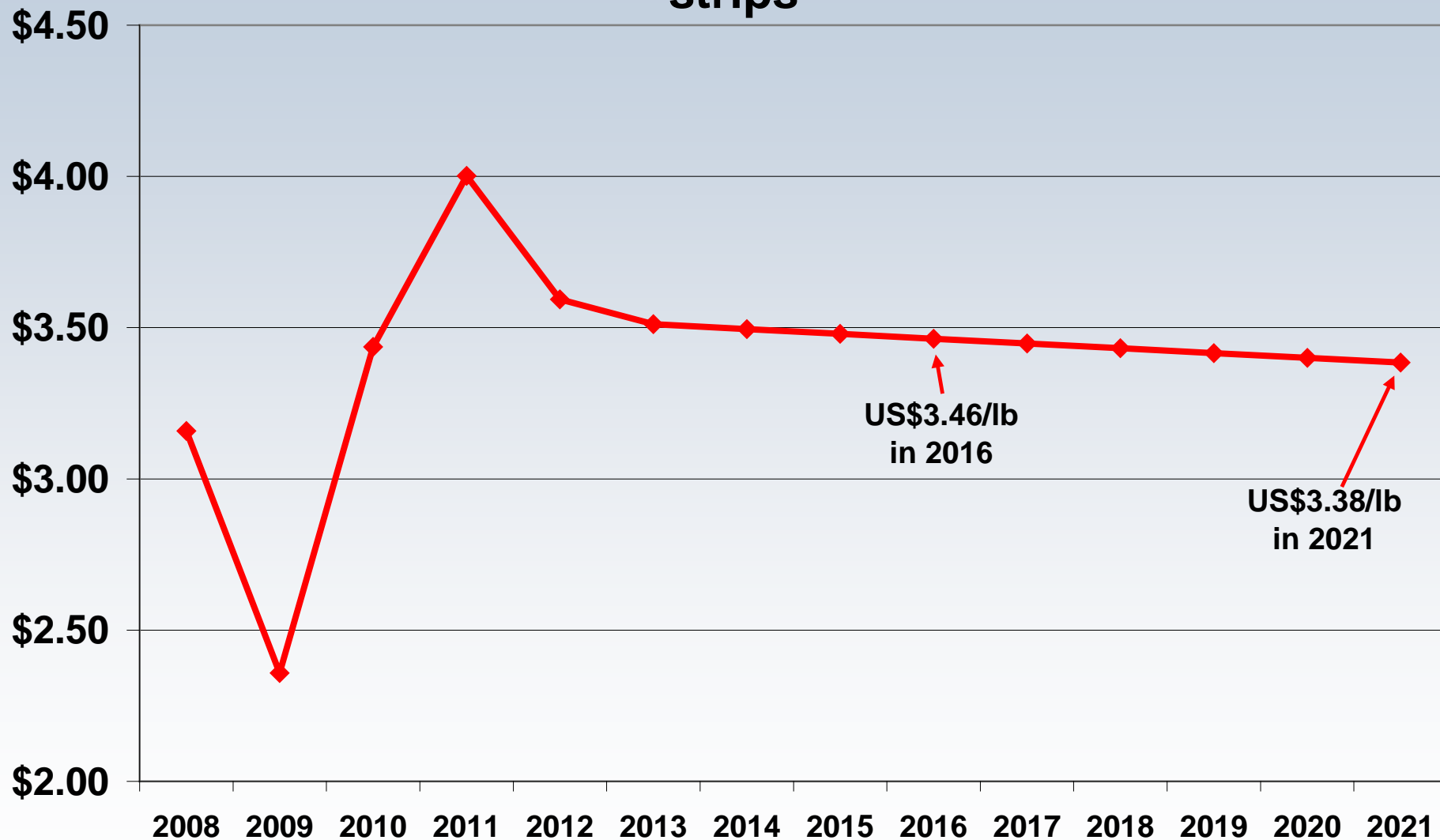
# COPPER



Source: ABMS, CRU, ICSG, WBMS, GFMS; Bloomberg; adjustments and estimates by Salman Partners Inc.  
"Pinch-point"™ is a trademark registered to Raymond Goldie

# FORECASTING METHOD #3: FORWARD STRIPS

# Copper Prices, US\$/lb, as implied by LME forward strips

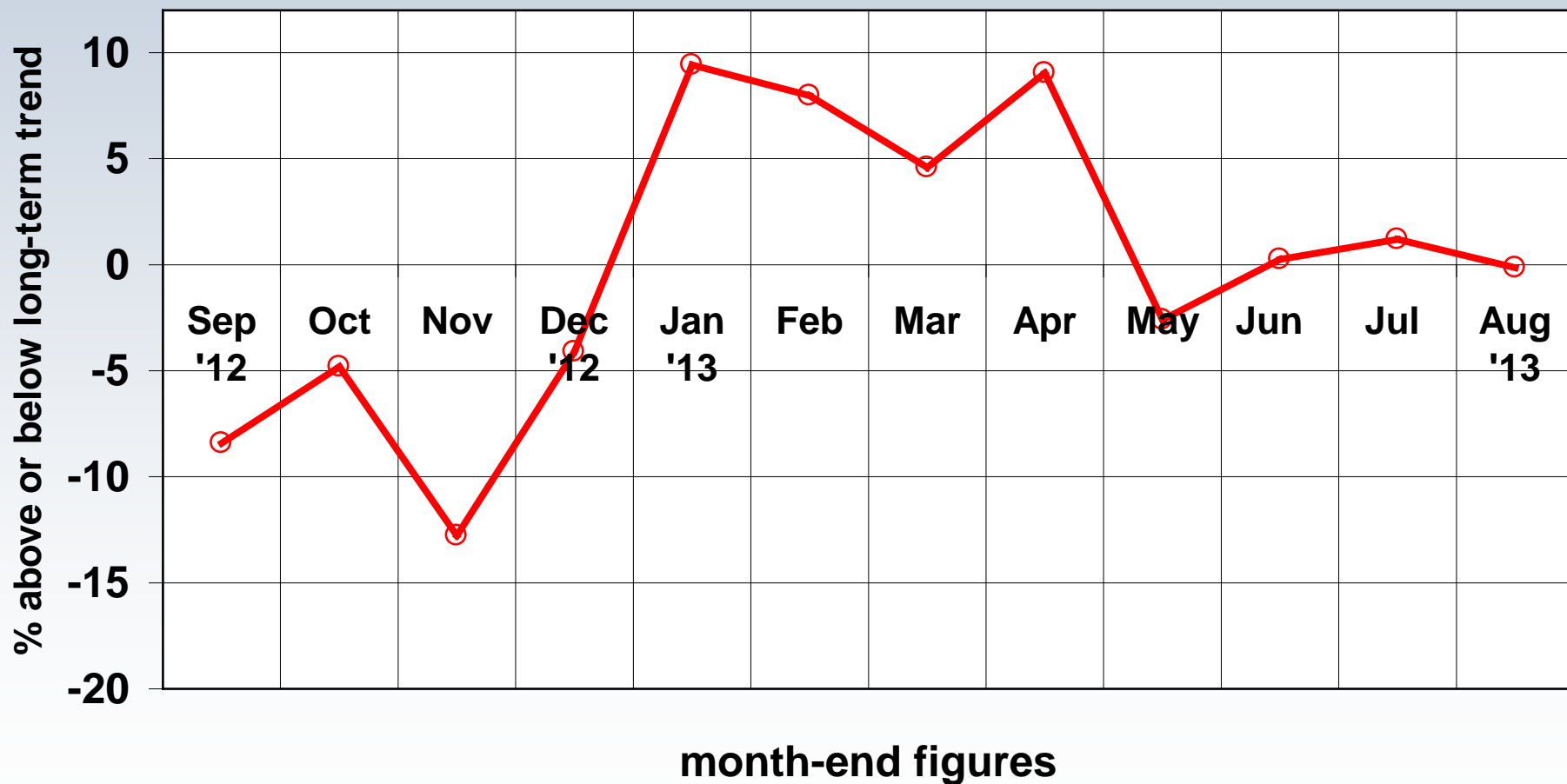


Source: LME, interpolation by Salman Partners inc., using exponential least-squares regression analysis



# PROJECTED SEASONAL TRENDS IN THE PRICE OF NICKEL

(as projected by Statistics Canada's "X-11" program)



Source: LME, calculations by Salman Partners Inc.

# NICKEL FUNDAMENTALS



The beauty of nickel (in the form of stainless steel): 8 Spruce St., New York, as designed by Frank Gehry. Mr. Gehry has expressed interest in building three towers, modelled on this one, on King St. West in Toronto.  
Source: [dezzen.com](http://dezzen.com)

WESTERN AREAS NL

**SULPHIDE MINE DISCOVERY DECLINING**

Discovery Year	Mt Nickel	Mine Name
1883	25	SUDBURY
1904	5	PECHENGA
1925	25	NORILSK
1939	0.5	
1946	0.5	
1953	8	DULUTH
1953	1	THOMSON
1953	5	JINCHUAN
1967	2	KAMBALDA
1967	7	LEINSTER
1974	1	HONEYMOON
1974	1	WELL
1981	1	KABANGA
1995	2	VOISEY'S BAY
2002	1	NEBO-BABEL
2002	1	SANTA RITA
2009	0.5	FORRESTANIA

**Energy Intensity of Primary Nickel Production by Plant**

Legend:

- Sulphide
- Laterite FeNi
- Laterite NPI
- Laterite HP&L
- Laterite Carno/ASX
- Laterite Other
- Mixed Sources

**NICKEL PIG IRON - ENERGY INTENSIVE**

Y-axis: GJ/t Finished Ni (0 to 1,200)

X-axis: Cumulative kt Finished Nickel (0 to 1,200+)

**Chinese nickel pig iron, 10% global production. Announced cut backs**  
**KEY: ENERGY INTENSIVE, POLLUTING**

**Talvivaara in Finland is first large scale commercial mine.**

**KEY: LOW CAPEX, LOW ENERGY**



www.THECOLOR.com

Source: thecolor.com





The Ambatovy nickel mine, Madagascar, May 2010 (photo by Raymond Goldie)

## NICKEL SUPPLY ISSUES - 4 different nickel sources



### 1) NICKEL SULPHIDES

mature nickel camps contribute  
~40% global production  
**NO MAJOR NEW DISCOVERIES**

### 2) NICKEL LATERITES

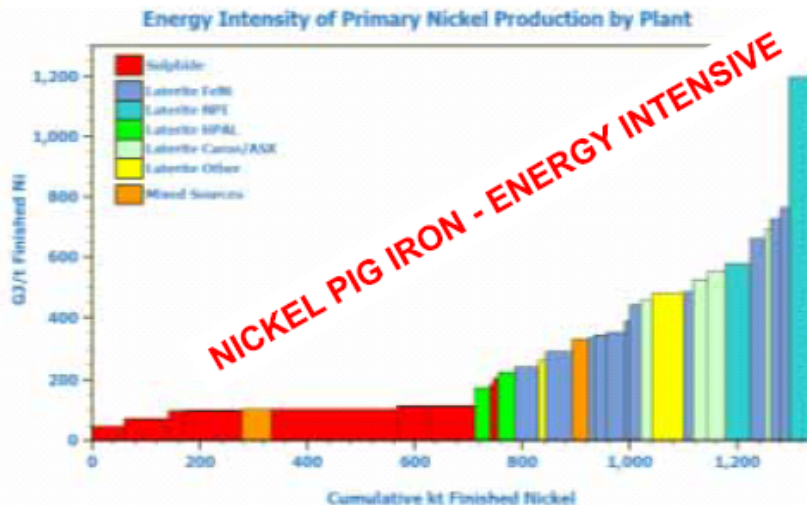
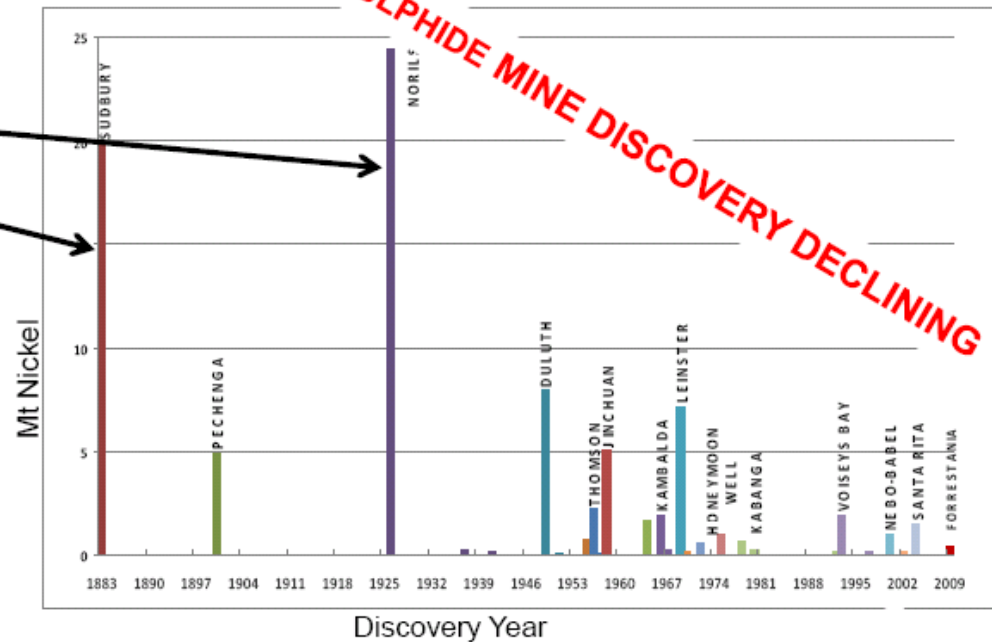
Laterite & Ferro Nickel contribute  
~50% global production  
**KEY: HIGH CAPEX = HIGH COST**

### 3) NICKEL PIG IRON

Chinese nickel pig iron, 10% global  
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**KEY: ENERGY INTENSIVE, POLLUTING**

### 4) BACTERIAL LEACHING

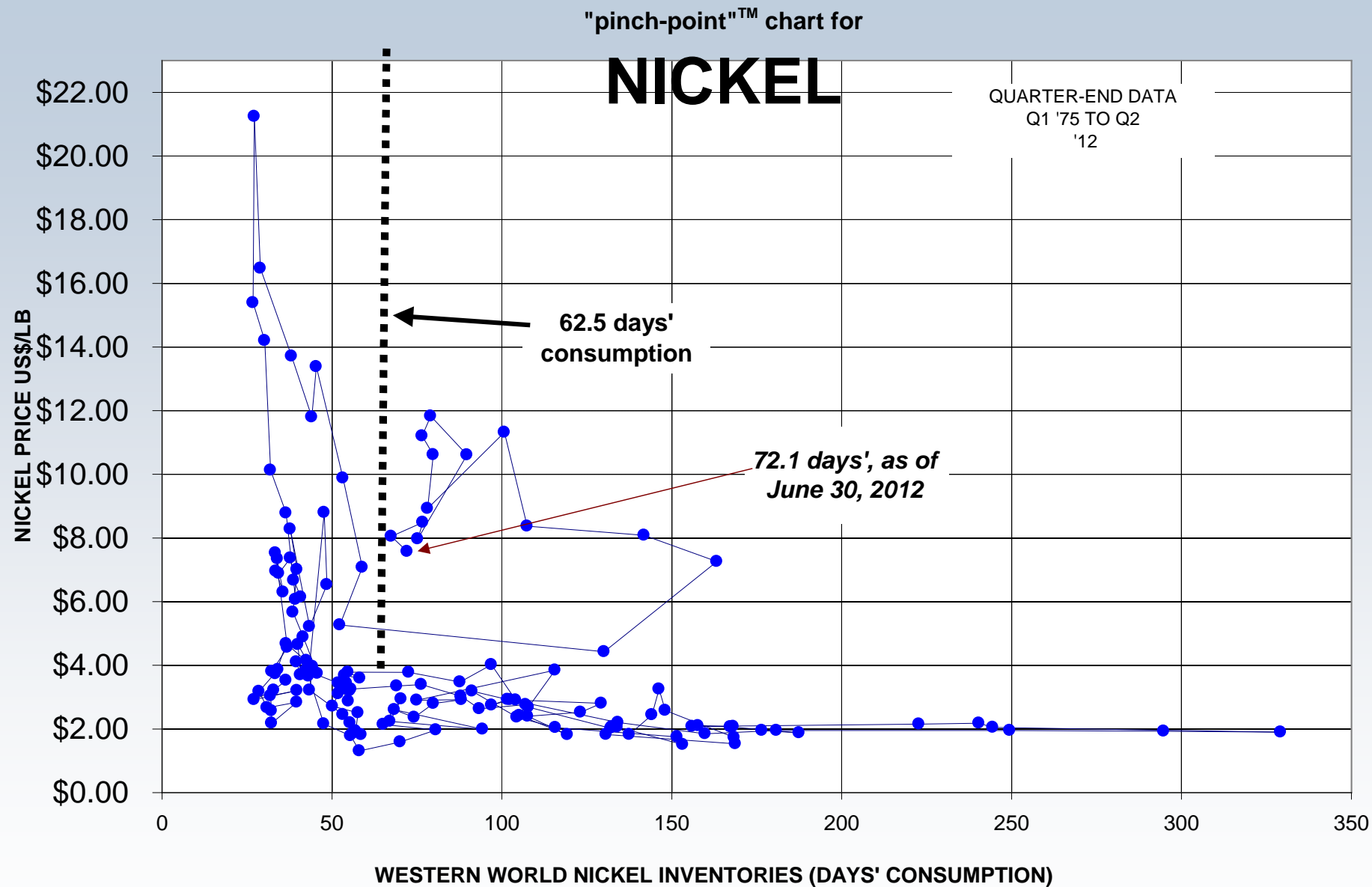
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Source: China Steel



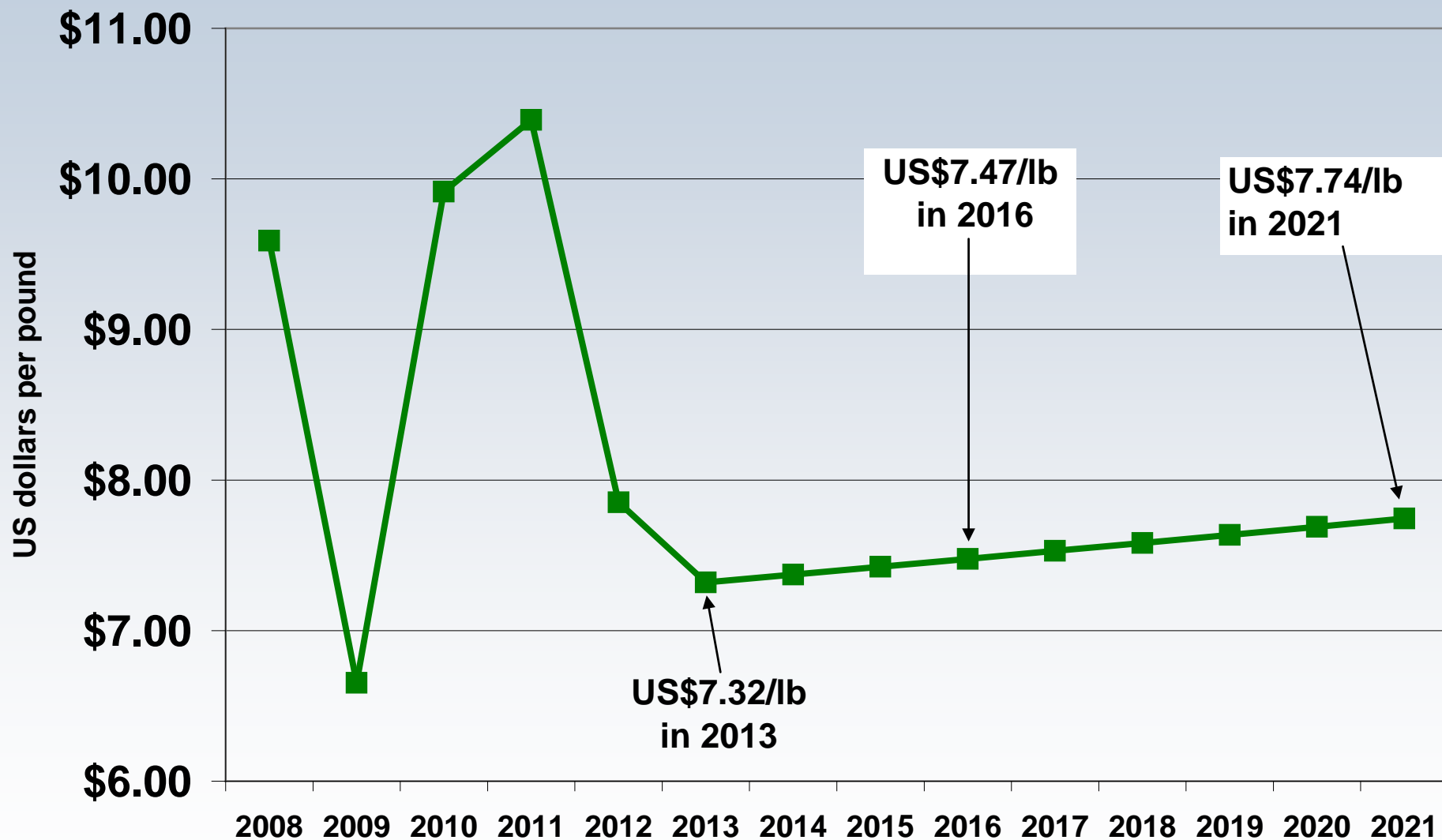


Source: INSG, WBMS, CRU, LME, GFMS, adjustments by Salman Partners Inc. "pinch-point™" is a trademark registered to Raymond Goldie. Note that our definition of Western world inventories includes those held by producers. Unlike the inventories registered with the **London Metal Exchange** (whose levels are published daily), producers' inventories are published only once a quarter.



Stainless steel scrap. Source: okokchina.com

# Nickel Prices as implied by LME forward strips



Source: LME, interpolation by Salman Partners Inc., using exponential least-squares regression analysis



## Cash out of gold and send kids to college

"All the gold that has ever been mined is still in existence, but it continues to exist because it is sterile – quite literally useless."

Source: Financial Times, August 7 2012



Source: [cine-talkies.com](http://cine-talkies.com)

# LIFE

WHY MORE AND MORE MINISTERS CRACK UP  
NEW PHOTOS EXPOSE A HISTORIC HOAX:  
THE CASE OF DR. COOK AND MT. MCKINLEY

AUDREY HEPBURN  
AS TOLSTOY HEROINE  
IN 'WAR AND PEACE'

20 CENTS

AUGUST 20, 1956

MR. BEN ROMANSKI  
RT 3 BOX 453  
WISCONSIN RAPIDS WIS  
60 26435 10 4802 0453

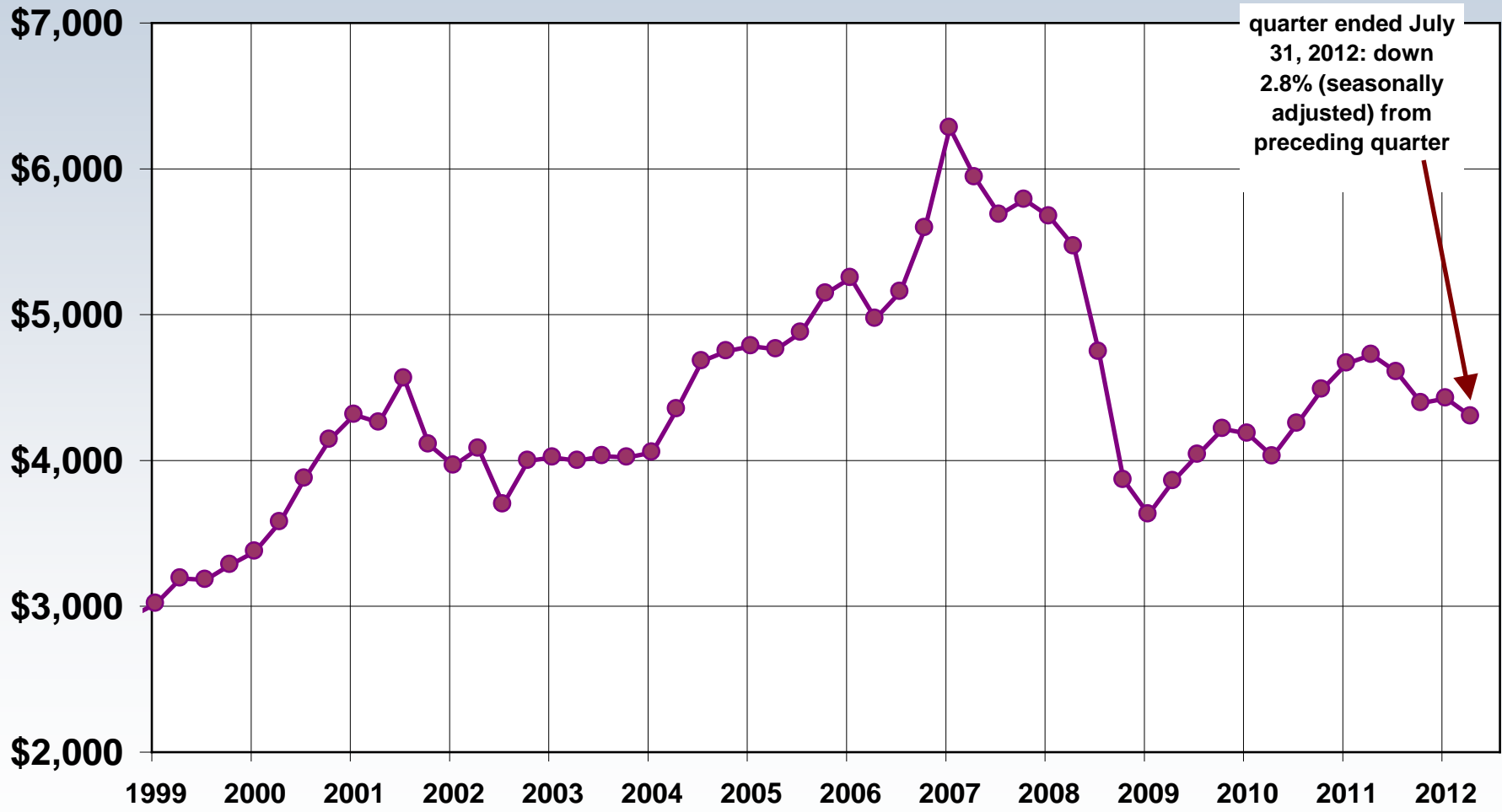
Source: Life magazine





Source: [media.onsugar.com](http://media.onsugar.com)

# Approximation of Tiffany & Co's seasonally-adjusted, quarterly sales per store in the Americas (sales x \$'000)



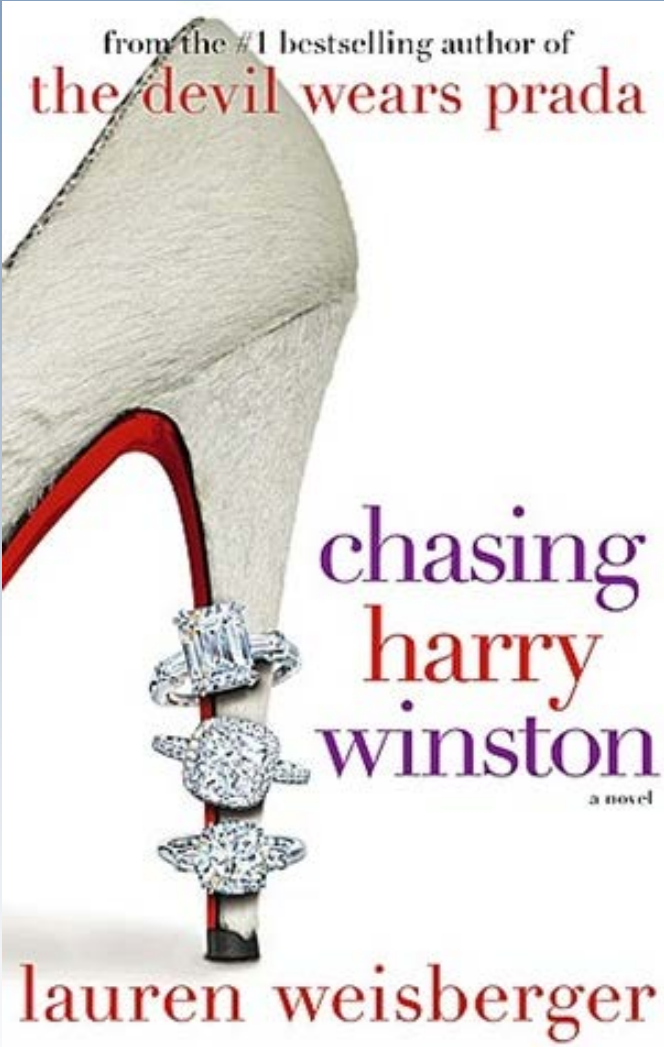
Note: These are fiscal years beginning on Feb. 1 (e.g. "2012" refers to the year beginning Feb. 1, 2012)

Source: Tiffany & Co., estimates and adjustments by Salman Partners Inc.





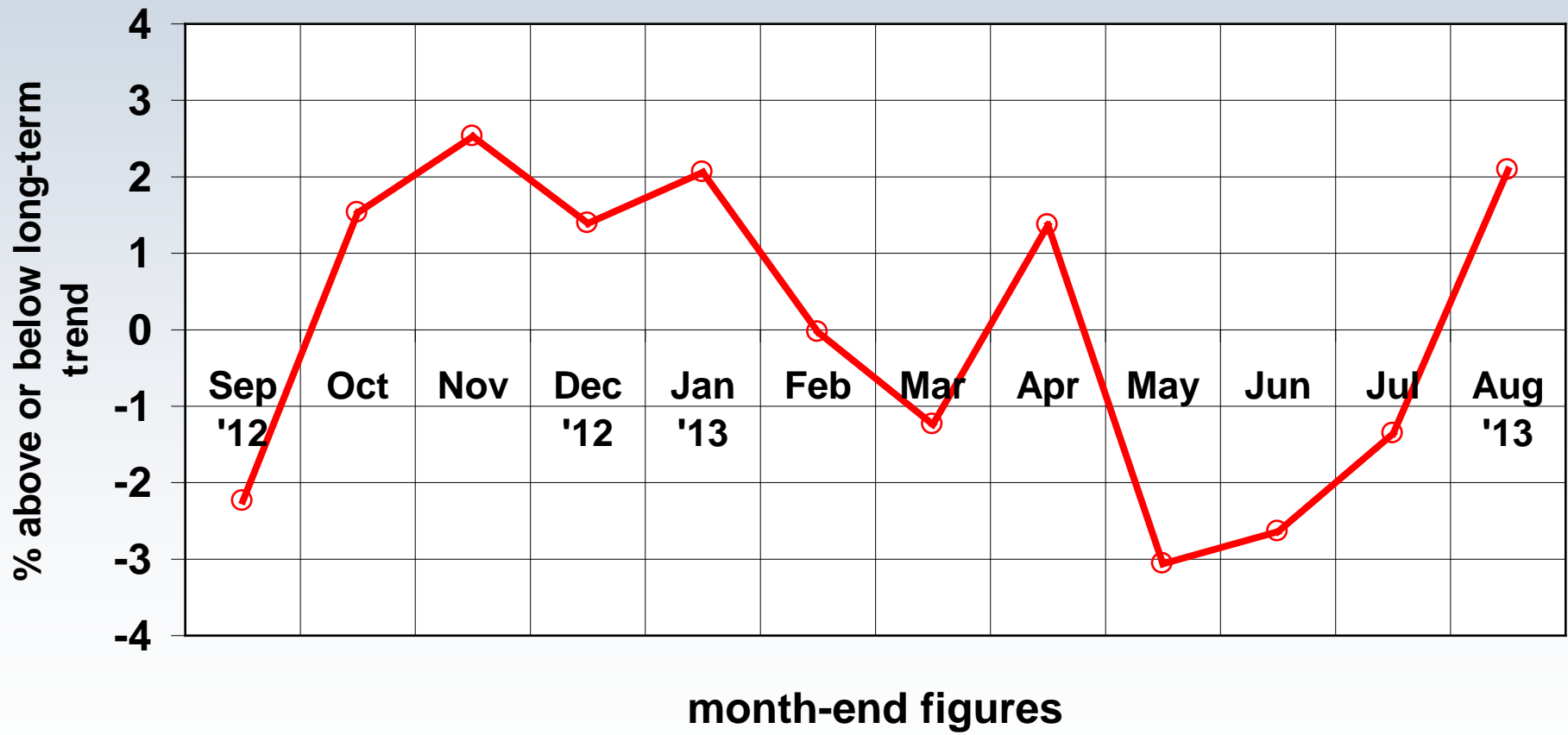
Source: [monstersandcritics.com](http://monstersandcritics.com)



Source: [amazon.com](http://amazon.com)

# PROJECTED SEASONAL TRENDS IN GOLD BULLION PRICES, US\$

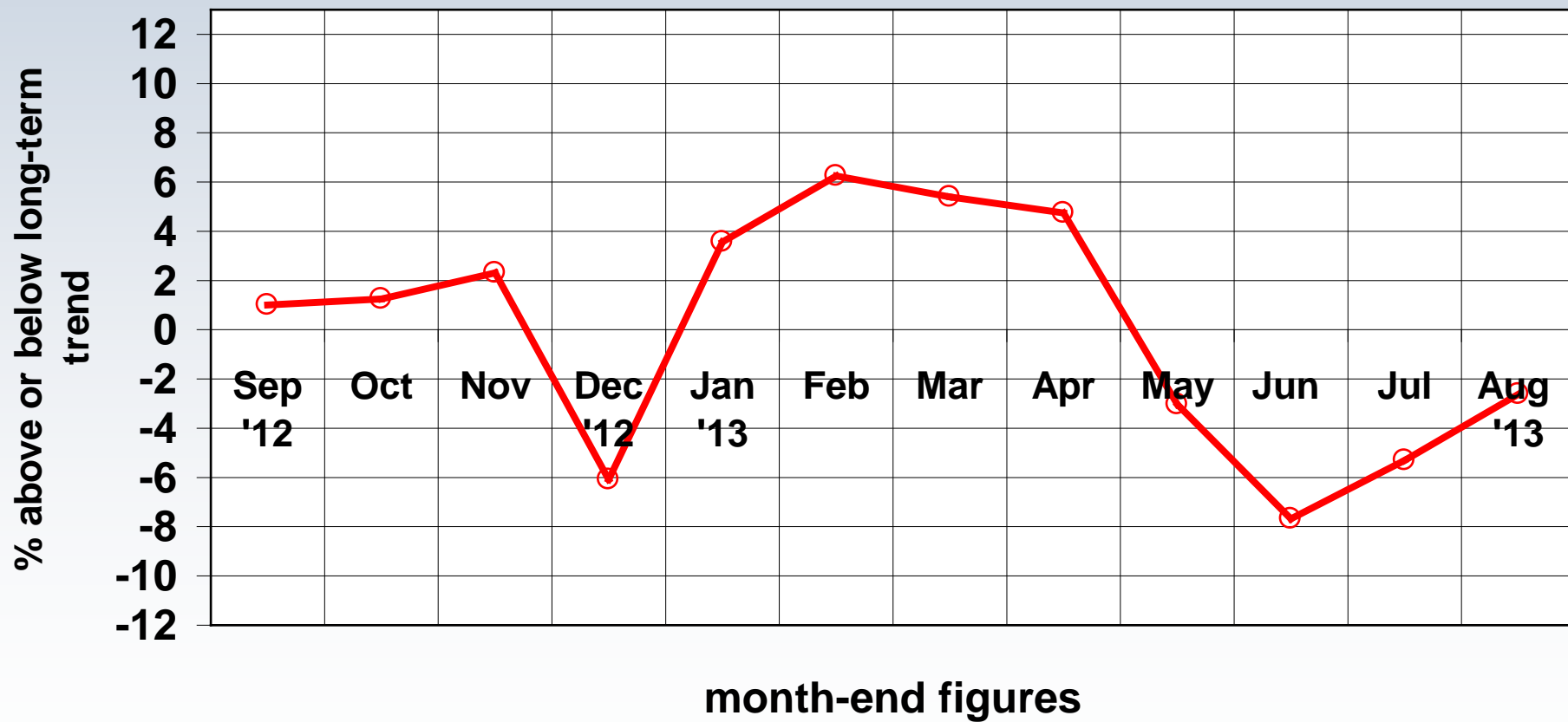
(as estimated by Statistics Canada's "X-11" program)



Month-end London PM fix. Sources: Reuters and "Platt's Metals Week", McGraw-Hill Inc.; estimates by Salman Partners Inc.

# PROJECTED SEASONAL TRENDS IN SILVER PRICES, US\$

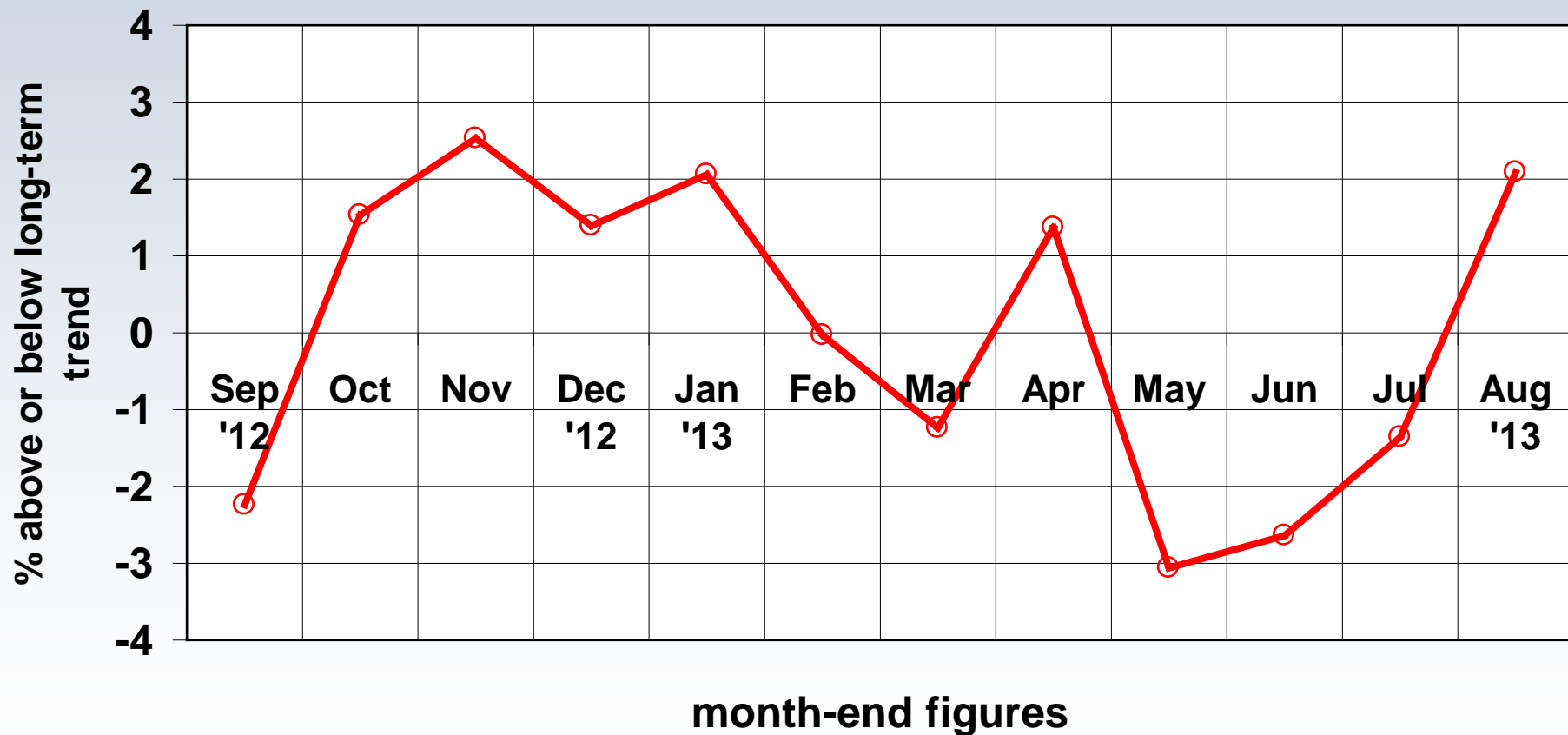
(as estimated by Statistics Canada's "X-11" program)



Month-end London PM fix. Sources: Reuters and "Platt's Metals Week", McGraw-Hill Inc.; estimates by Salman Partners Inc.

# PROJECTED SEASONAL TRENDS IN GOLD BULLION PRICES, US\$

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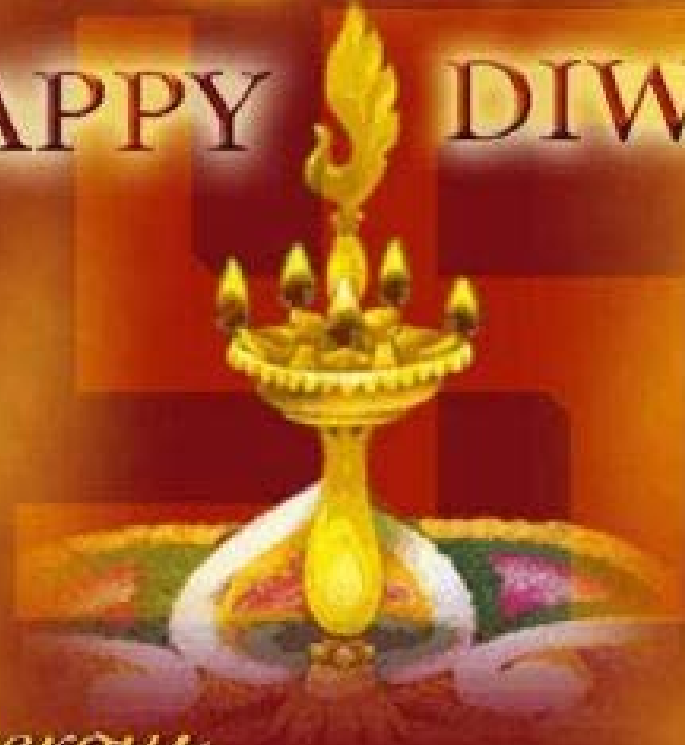
Month-end London PM fix. Sources: Reuters and "Platt's Metals Week", McGraw-Hill Inc.; estimates by Salman Partners Inc.

# October 9-14, 2012 Annual Meetings of the International Monetary Fund and the World Bank Group

Tokyo

Source: IMF

Wish You  
HAPPY DIWALI



Prosperous  
New Year

## When is Diwali celebrated?

*Diwali* is celebrated for 5 days according to the lunar Hindu Calendar. It begins in late *Ashwin* (September–October) and ends in early *Kartika* (October–November).

Source: Wikipedia

Source: topinews.com





Wealthy Indian brides can spend \$2 million on gold they wear on their big wedding day

Source: ABC News

India is the world's number one consumer of gold, accounting for almost a fifth of gold sales.

There are spikes in gold demands both January and September ... to meet the demands of the two Indian wedding seasons. The first... starts in November and ends in December. The second starts in late March and runs through into early May.

Source: current businessnews.net

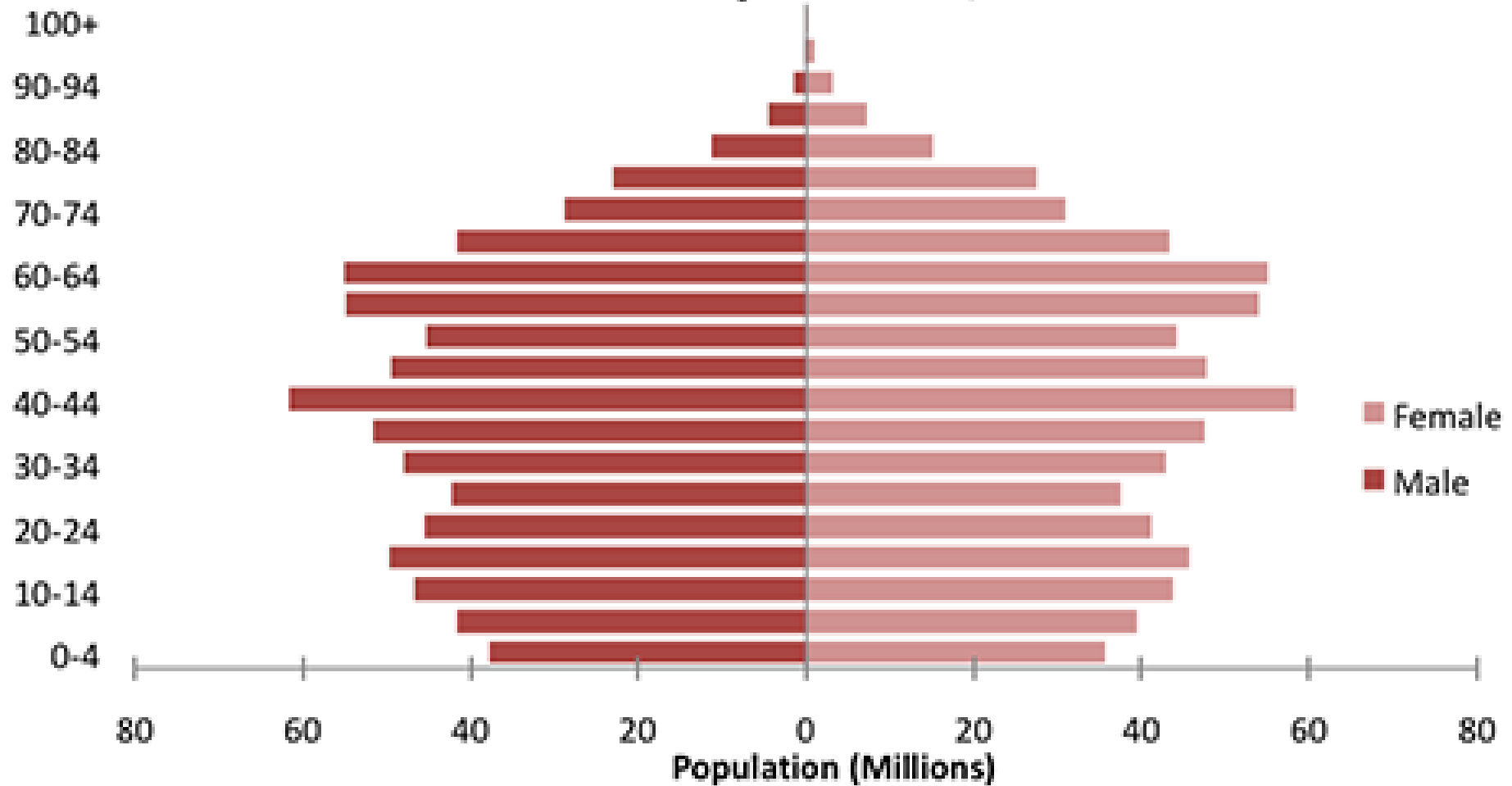
Source: current businessnews.net

# India's “demographic dividend”

“when a country's population includes a disproportionate number of young, educated, working age adults, it has a highly positive effect on the country's economy... a large and relatively young population is entering the [India] workplace and ... in 20 years, the middleclass population of India will equal half a billion”.

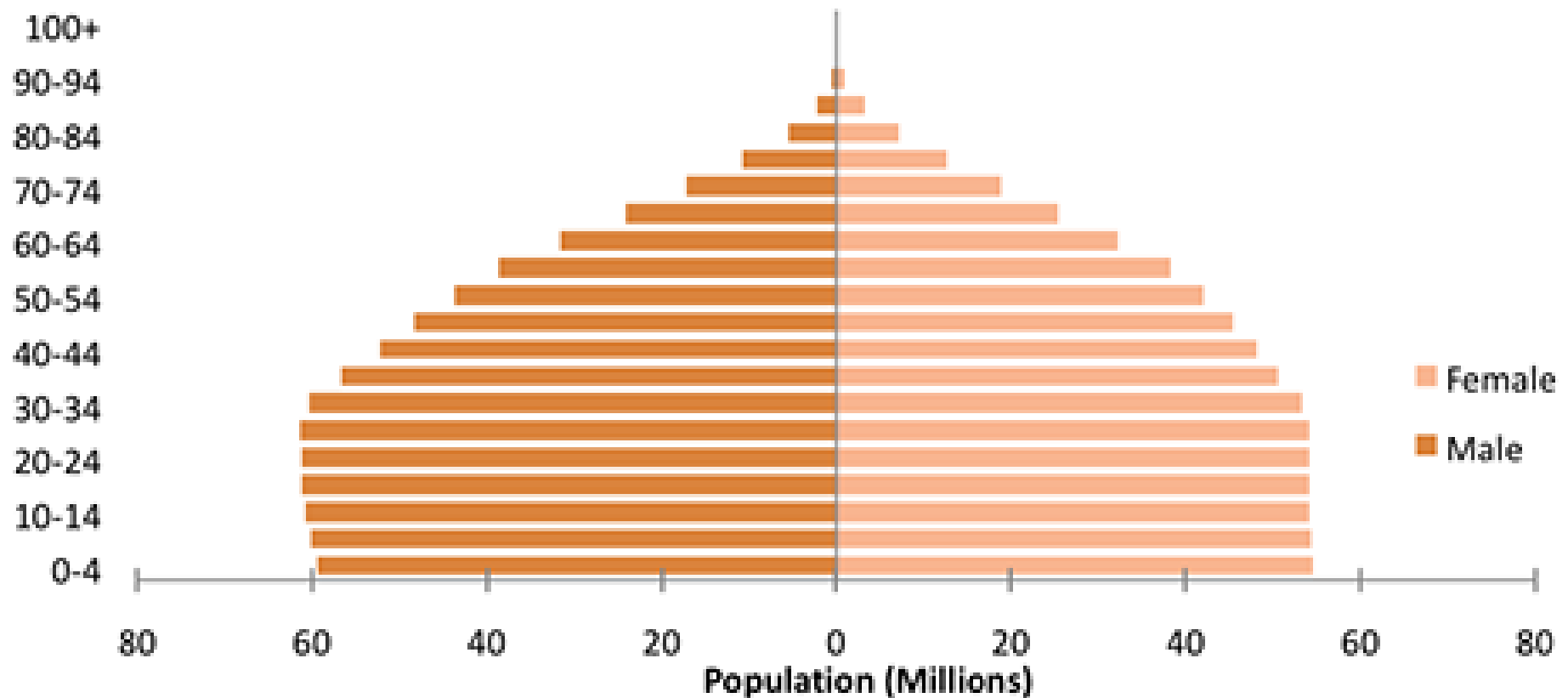
Source: Nandan Nilekani, Unique Identification Authority of India ; CFA Digest, CFA Institute, 2010

# China Population, 2030



Source: stillgoingnative.com

# India Population, 2030



Source: [stillgoingnative.com](http://stillgoingnative.com)

# RECAPPING

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4. Junior companies are more likely to reduce spending on exploration to conserve cash.
5. Junior companies are more ready takeover targets than are big mining companies.

*The End*



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