

Drivers and Risks for Nickel Demand

Still Relying on China

7th China Nickel Conference

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John Barkas

john.barkas@metalytics.com.au

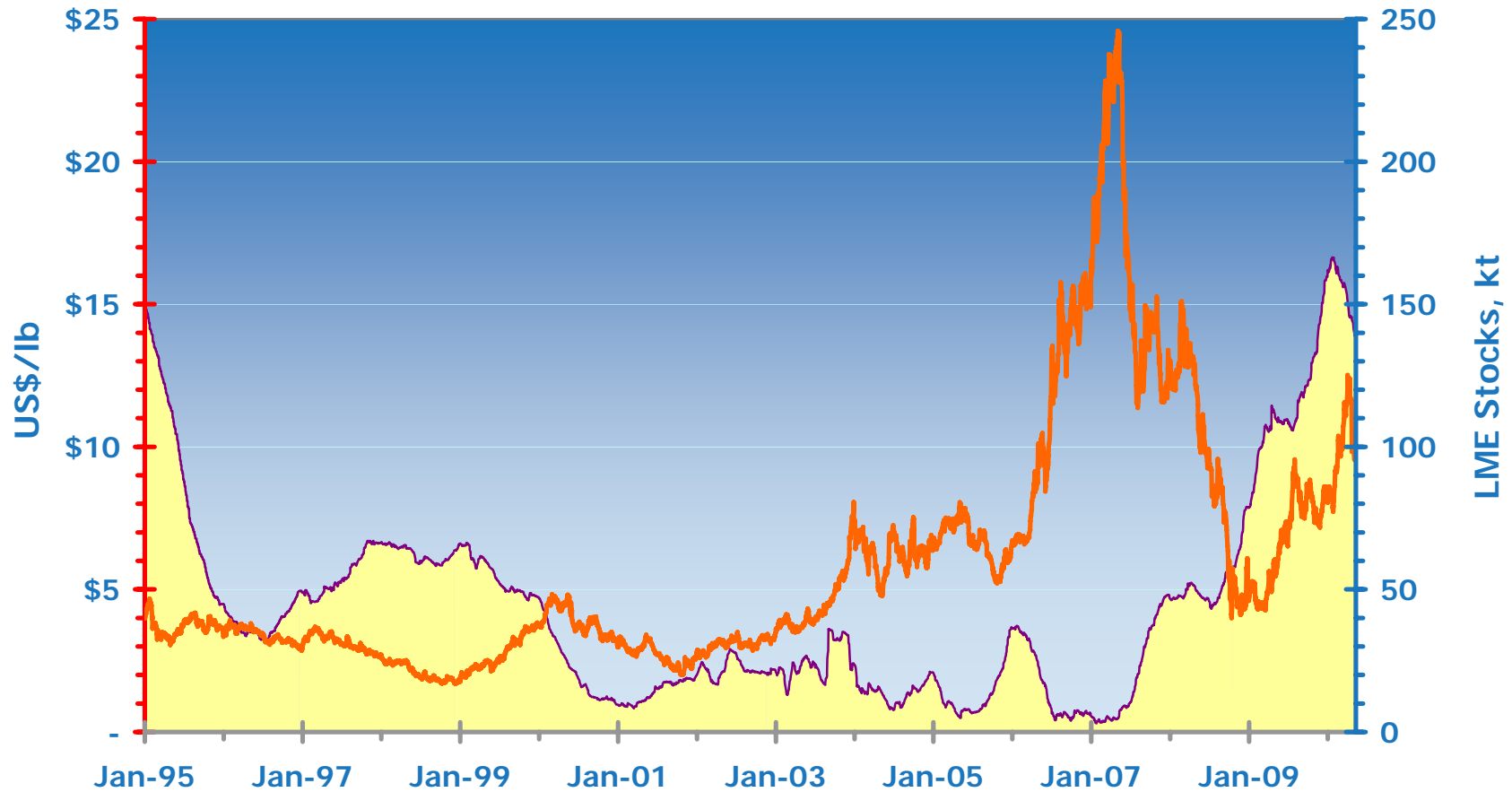
Nickel's well-known price volatility

Daily Nickel Settlement Prices 1987 to 24 May 2010



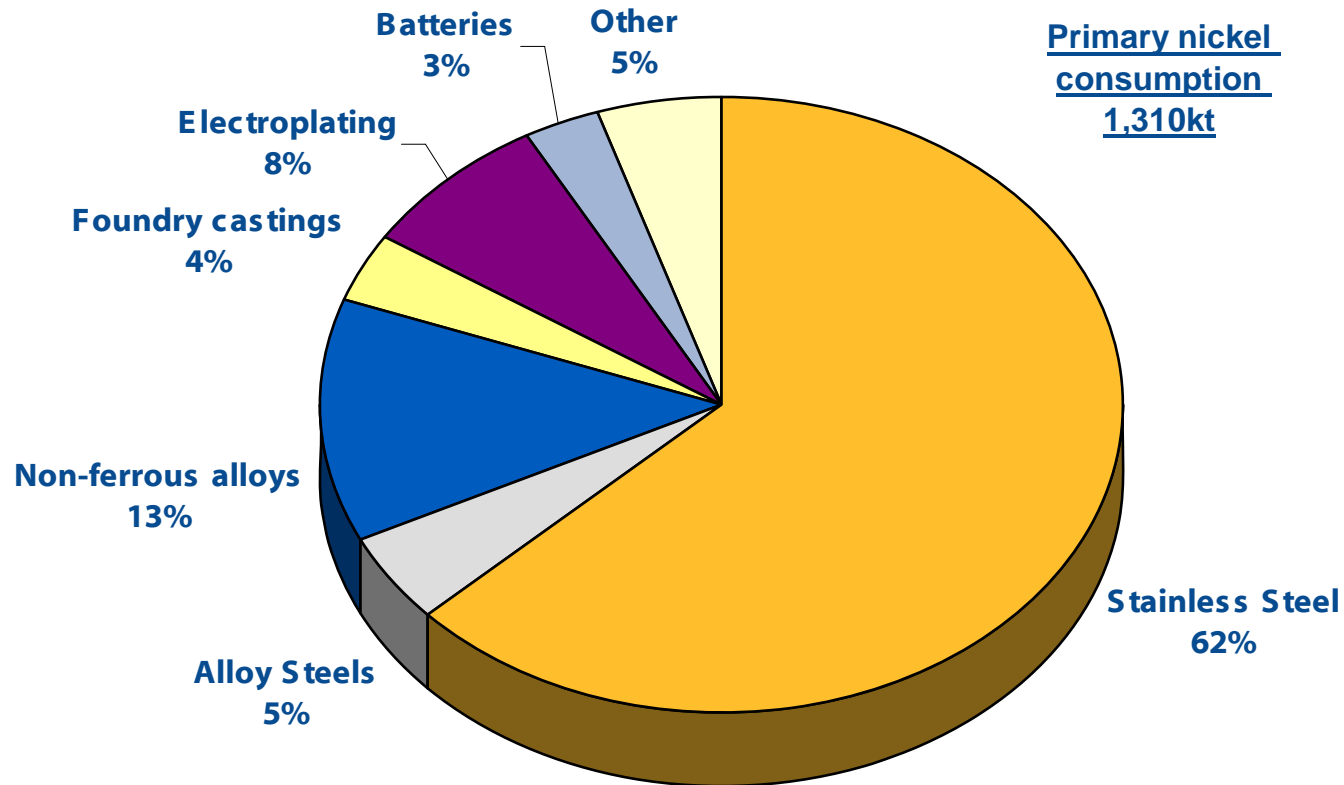
LME stocks peaked at over 166kt

Daily LME Nickel Settlement Prices and Stocks 1995 to 24 May 2010



Stainless steel dominates global nickel demand

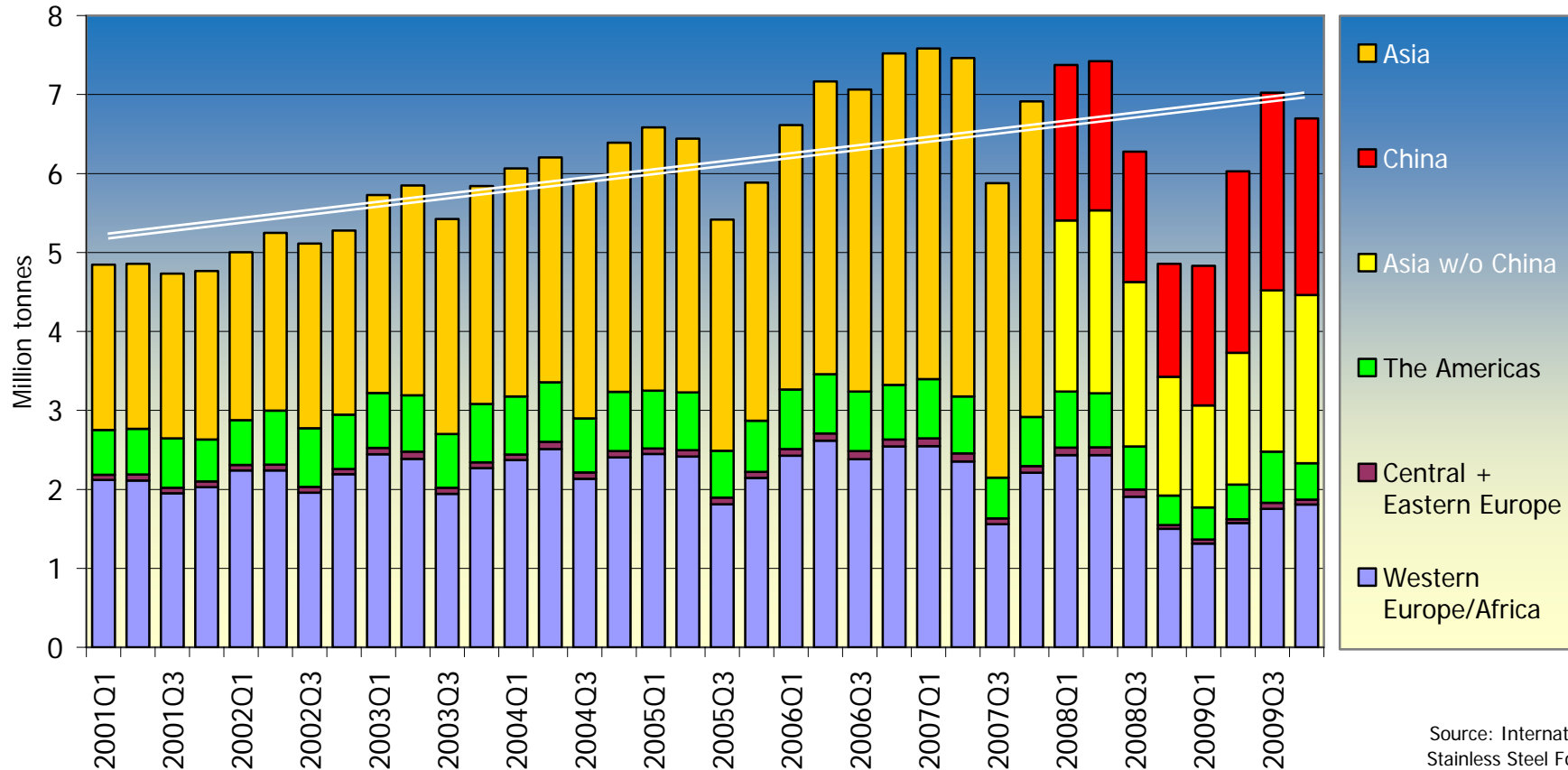
World primary nickel consumption by first use, 2009



Stainless steel production is back on track

Stainless and Heat Resisting Steel Crude Steel Quarterly Production

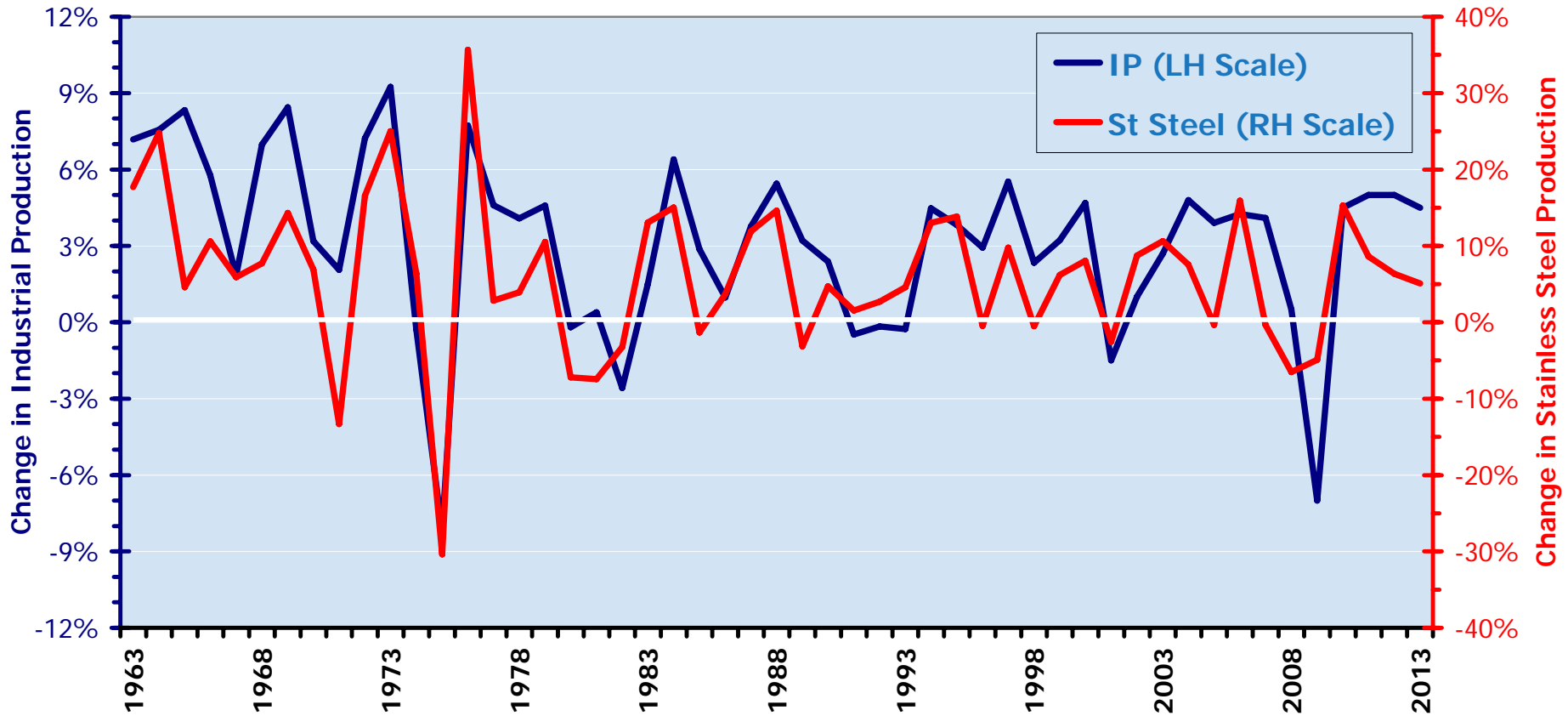
(Ingot/Slab Equivalent)



Source: International Stainless Steel Forum

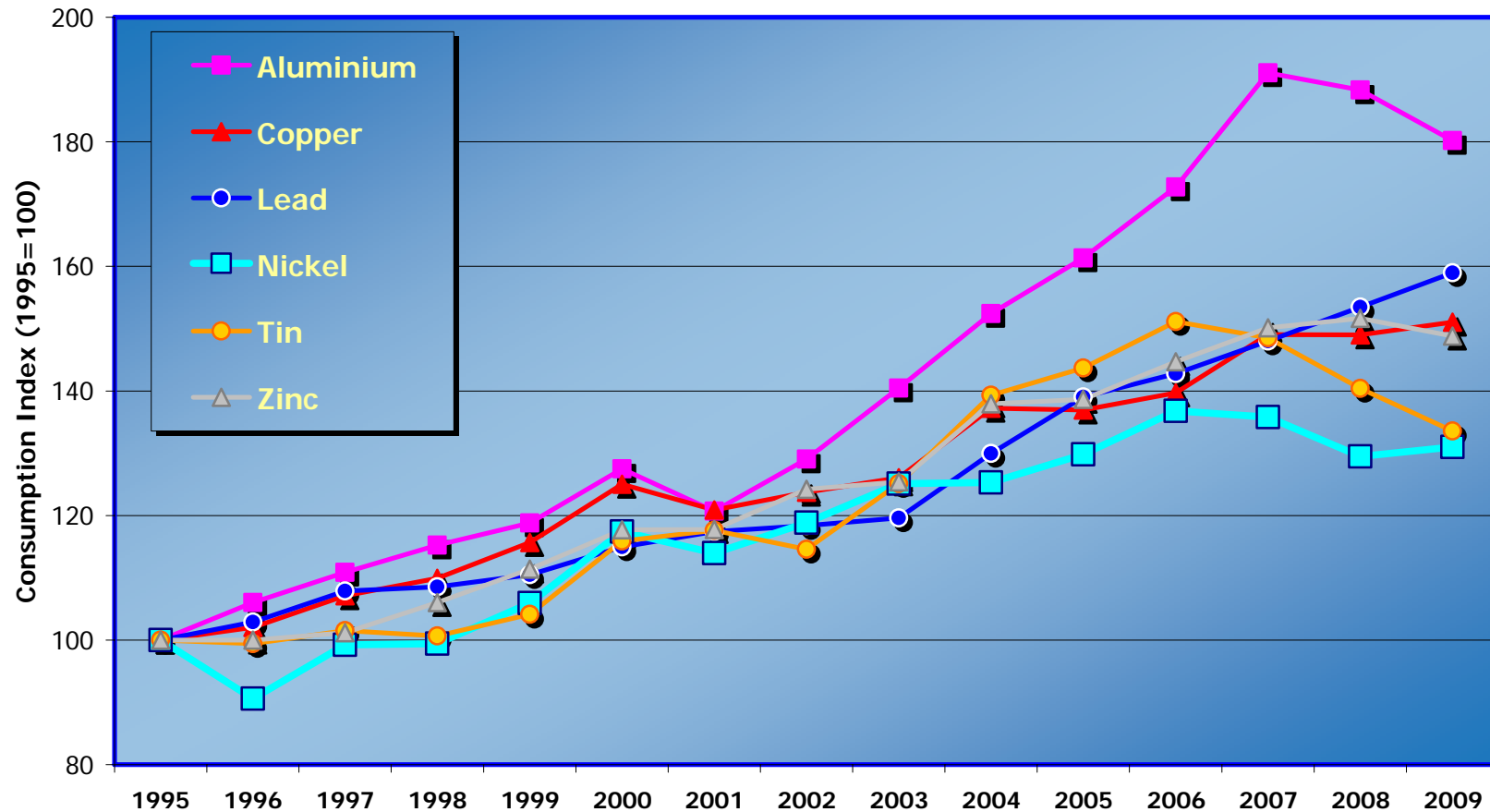
Stainless steel output and Industrial Production are highly correlated

Changes in Stainless Steel Production and IP, 1963-2013



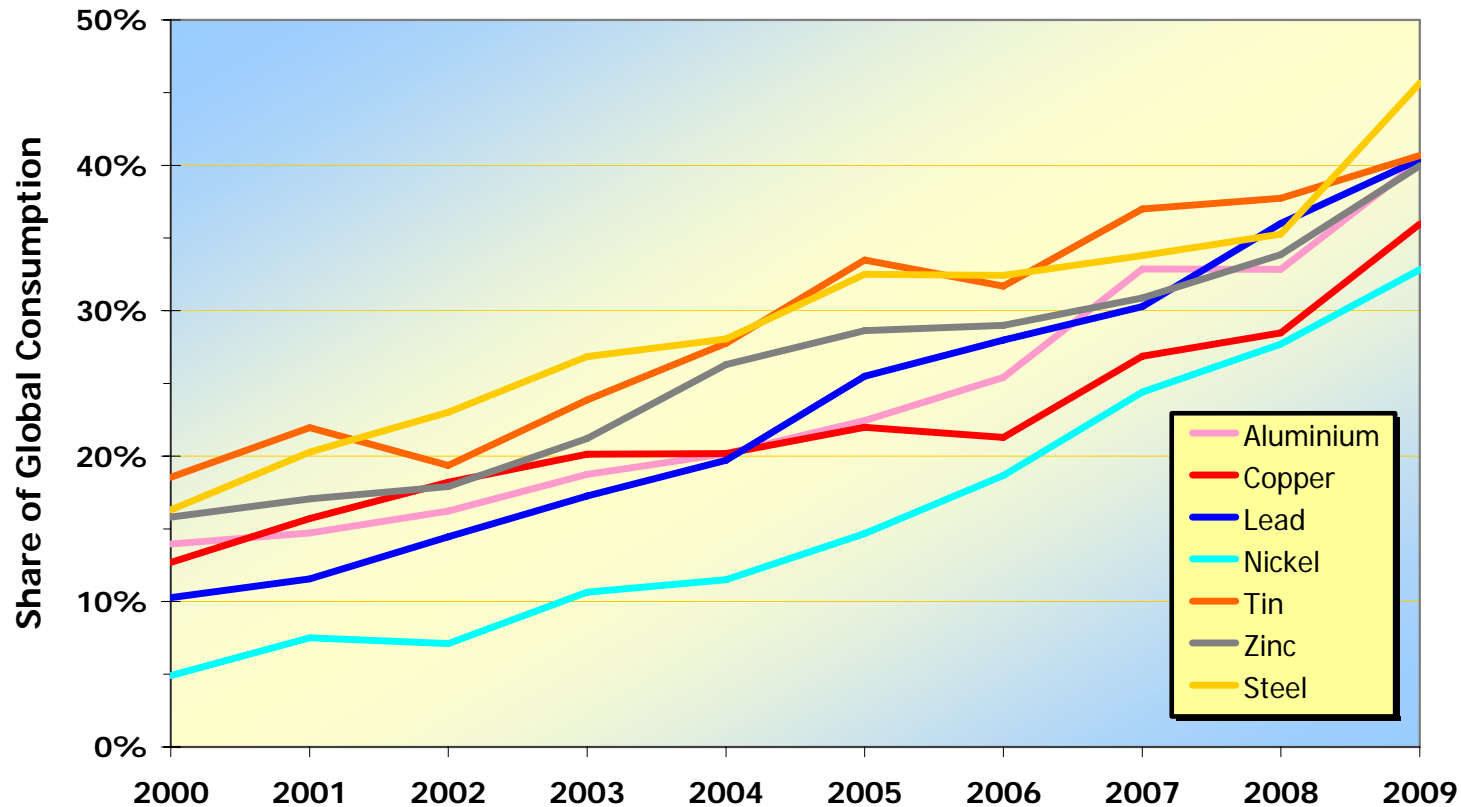
Nickel demand has been slow-growing

World Growth in non-ferrous metal consumption



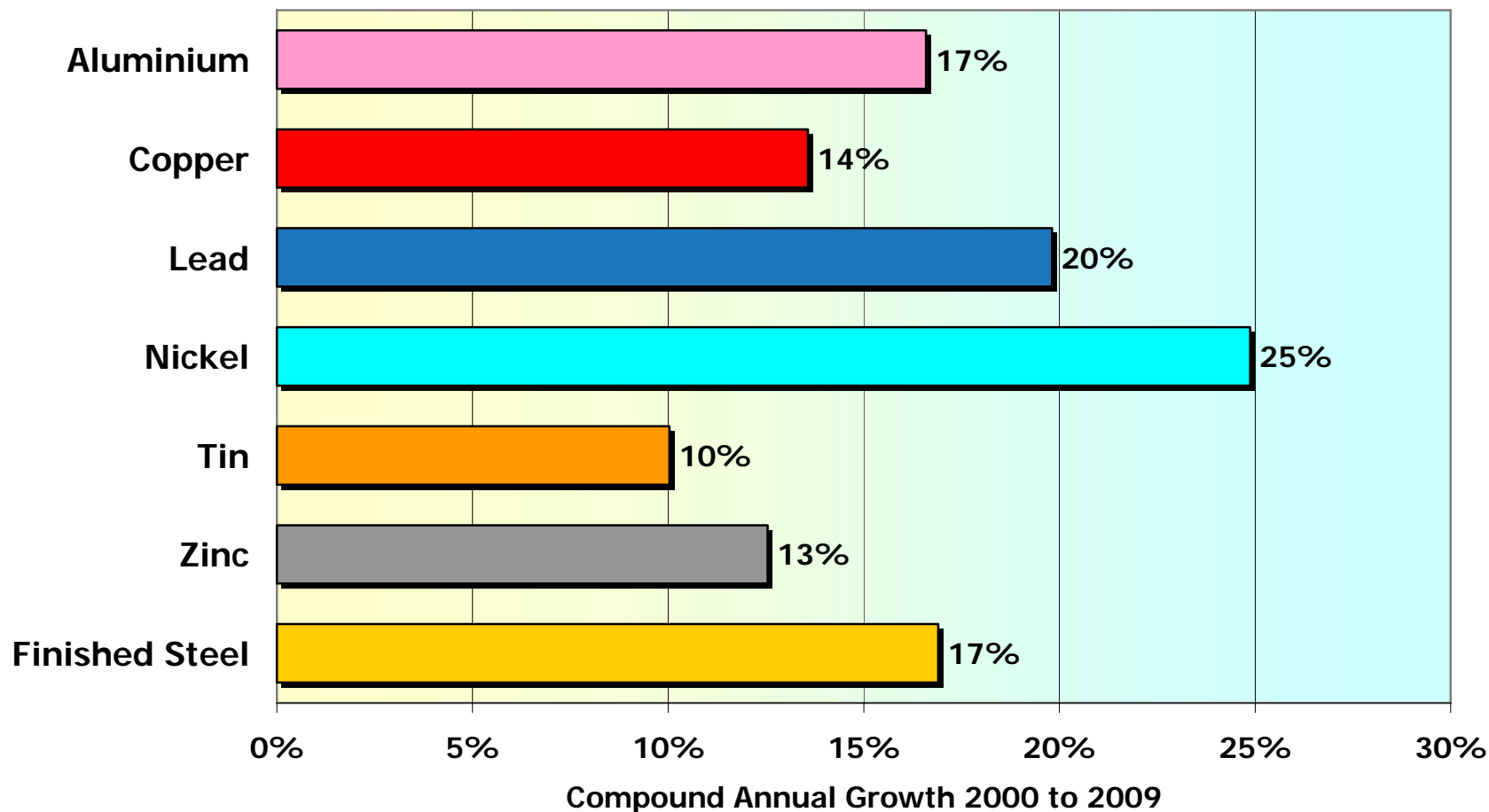
China now accounts for at least one third of world consumption of the major metals

China's Growing Importance as a Metal Consumer



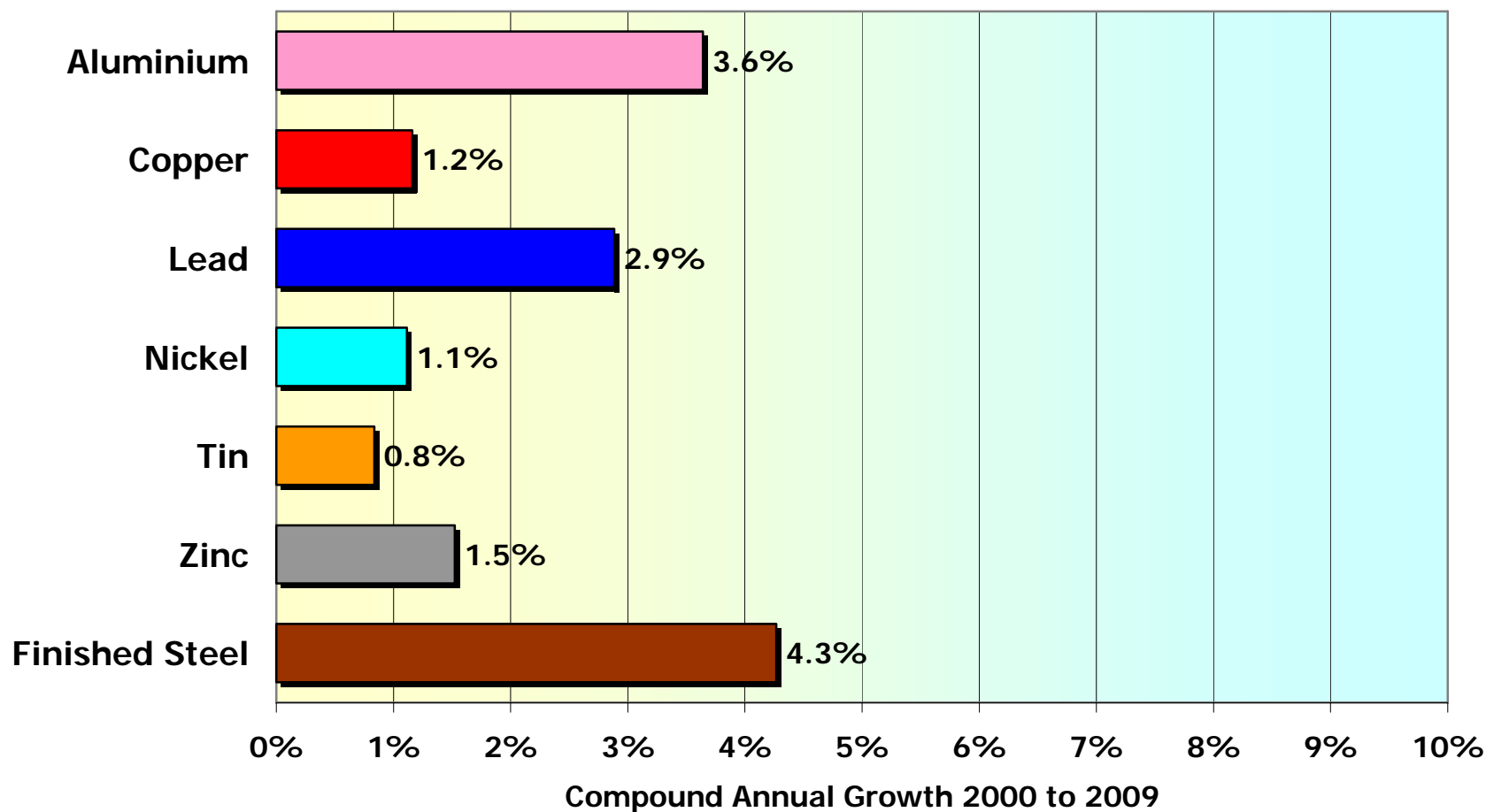
China's metal demand growth is phenomenal!

China's Metal Consumption Growth Rates



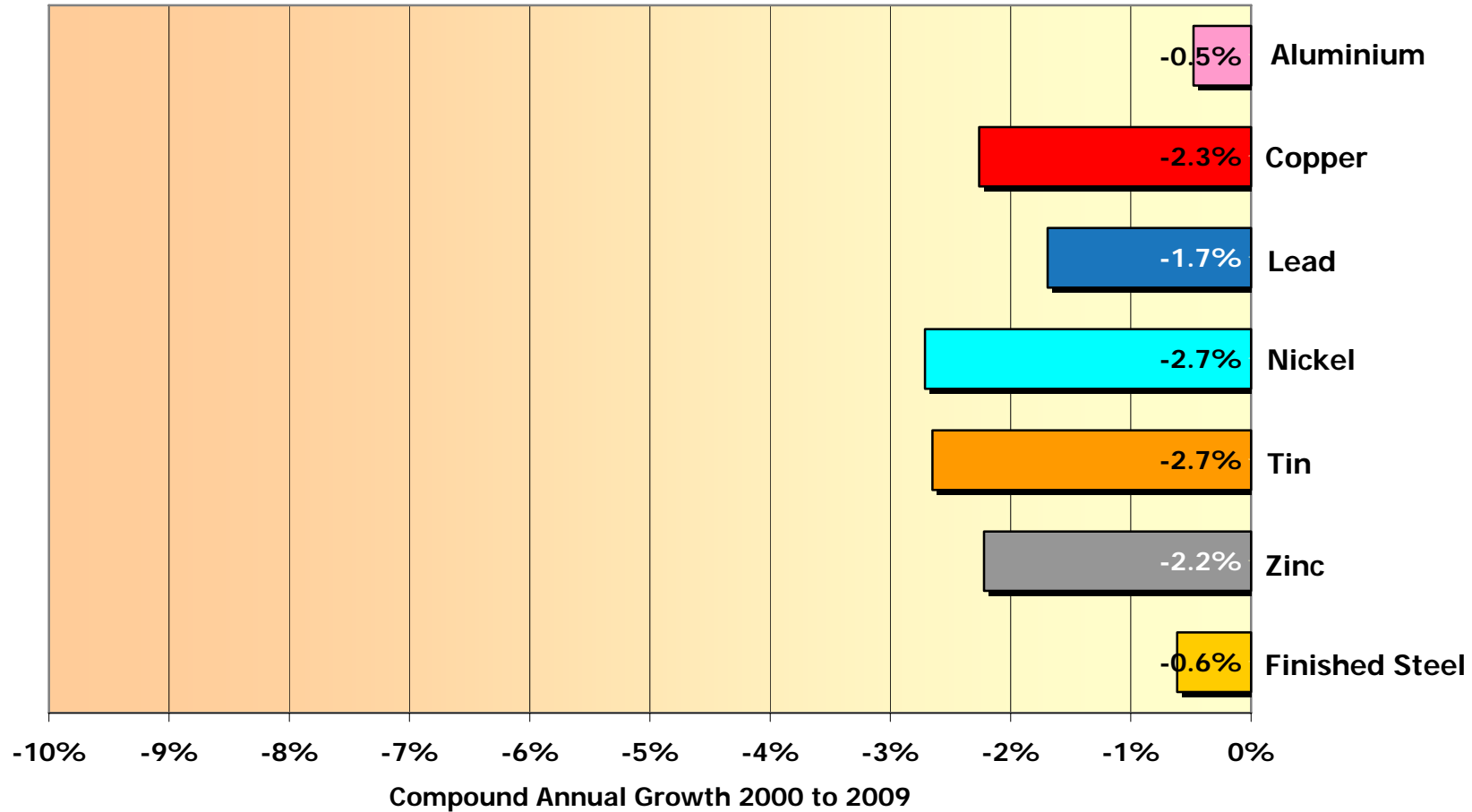
... and has dragged up global growth rates

World Metal Consumption Growth Rates



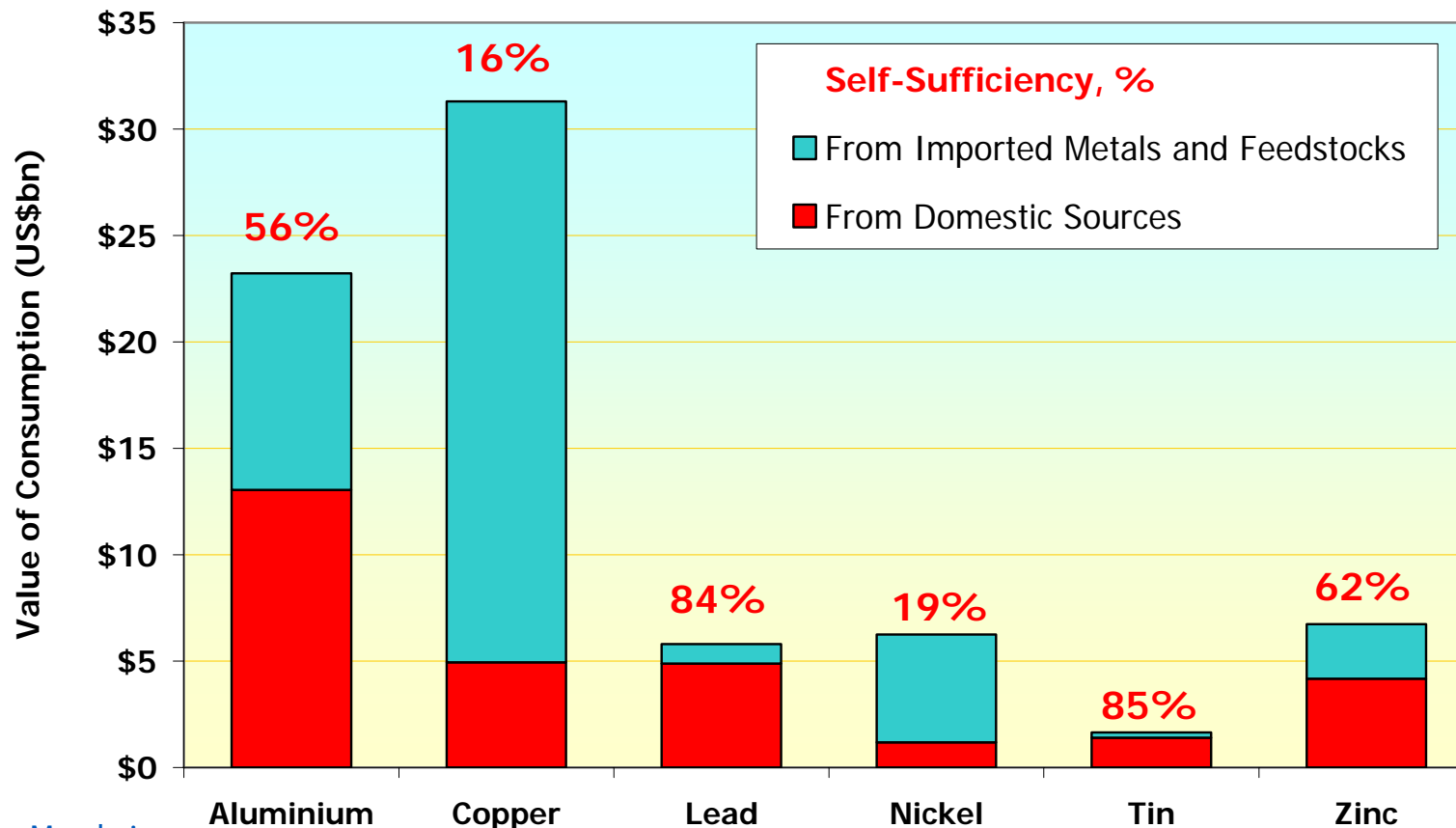
Negative growth in the rest of the world

ROW Metal Consumption Growth Rates



China's demand growth has far outstripped domestic mining capacity for non-ferrous metals

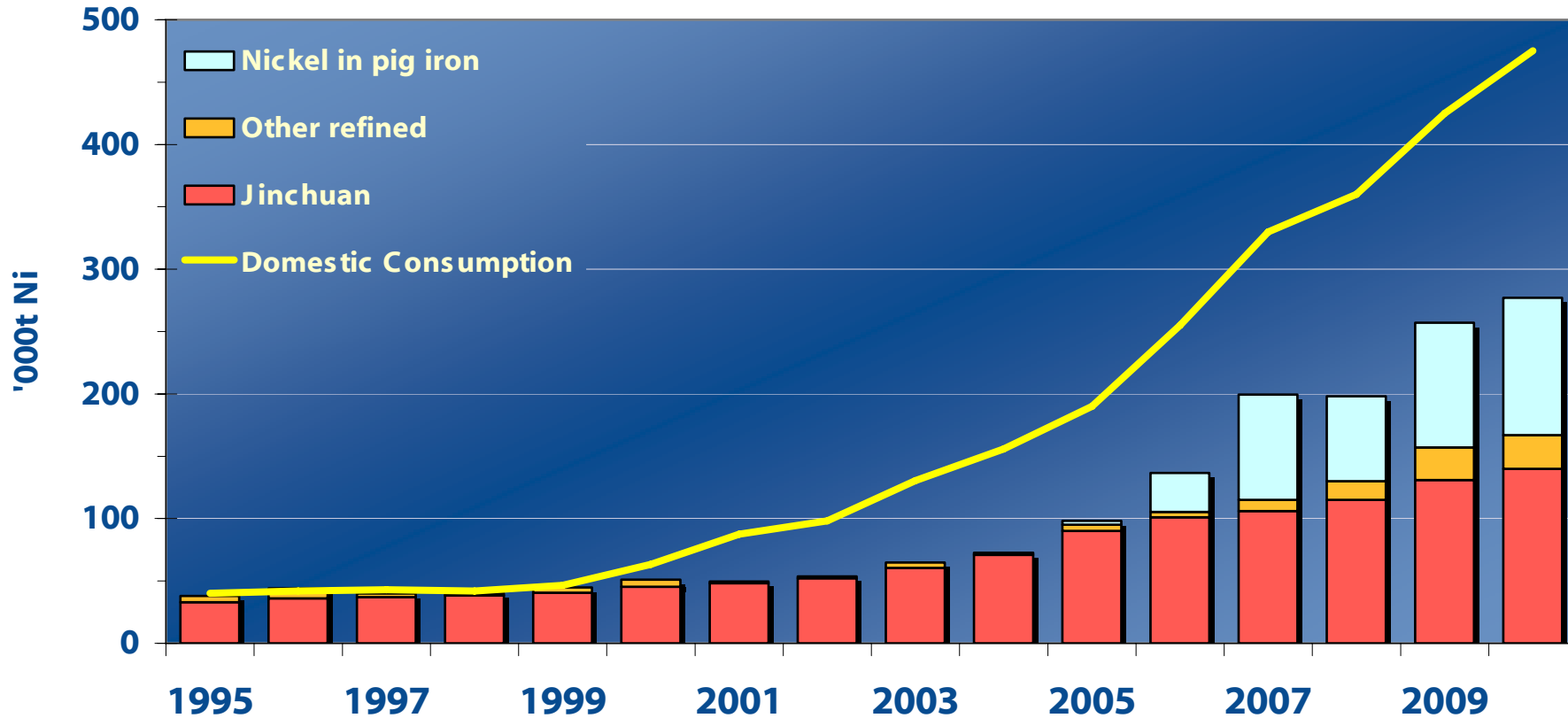
China's Self-Sufficiency in Non-ferrous Metals, 2009



Source: Metalytics

Nickel pig iron production goes only part-way towards filling China's supply/demand gap

Chinese Nickel Supply/Demand



Nickel in China

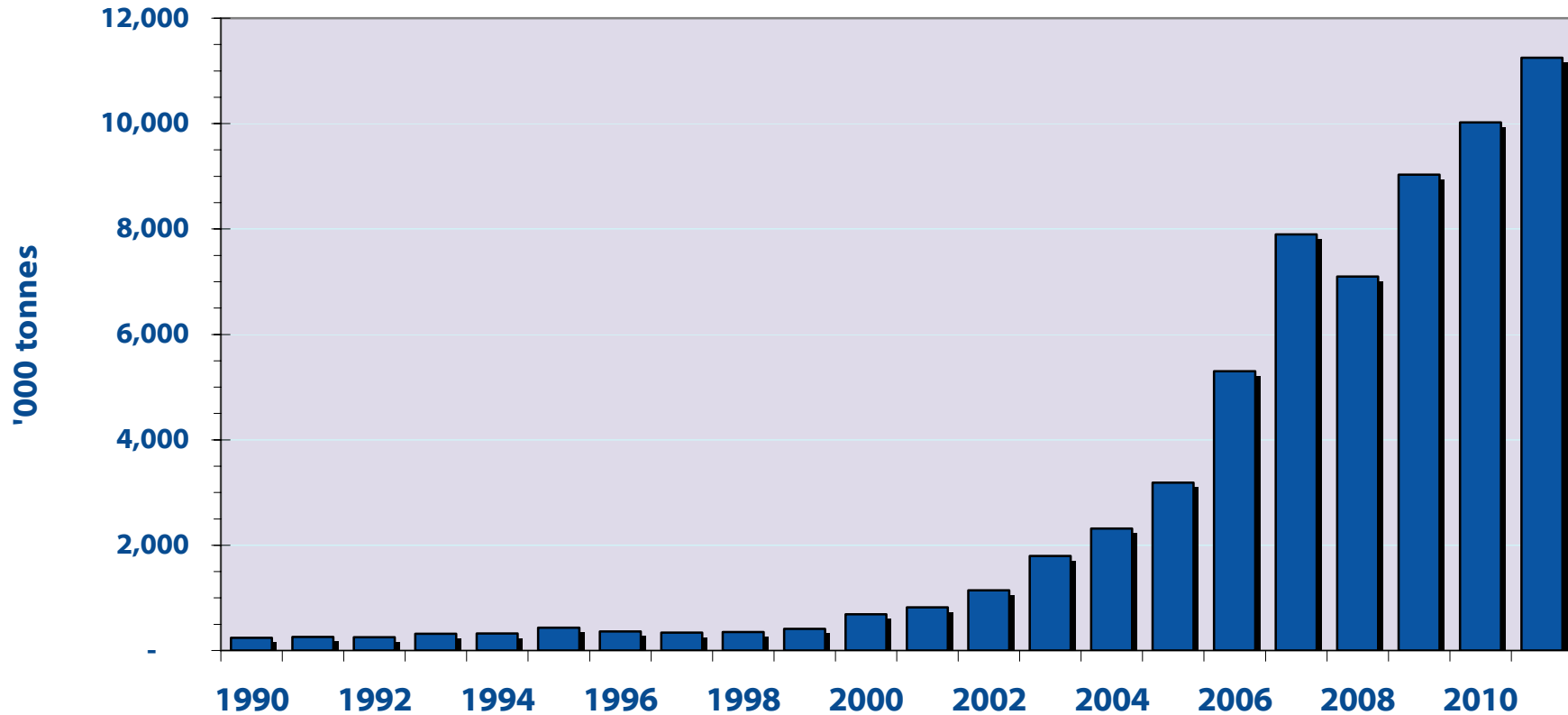
China's nickel consumption is increasing rapidly

- ✦ (360kt in 2008, 425kt in 2009; 10-year CAGR of 25%)

- ❖ Domestic mines currently only supply about 20%
- ❖ Heavy reliance on imported ores and concentrates
 - ✦ From Philippines, Indonesia, Australia, New Caledonia, Spain, Botswana, etc
- ❖ ... as well as imported finished Ni and FeNi
 - ✦ (imports of 150kt in 2008, 359kt in 2009)

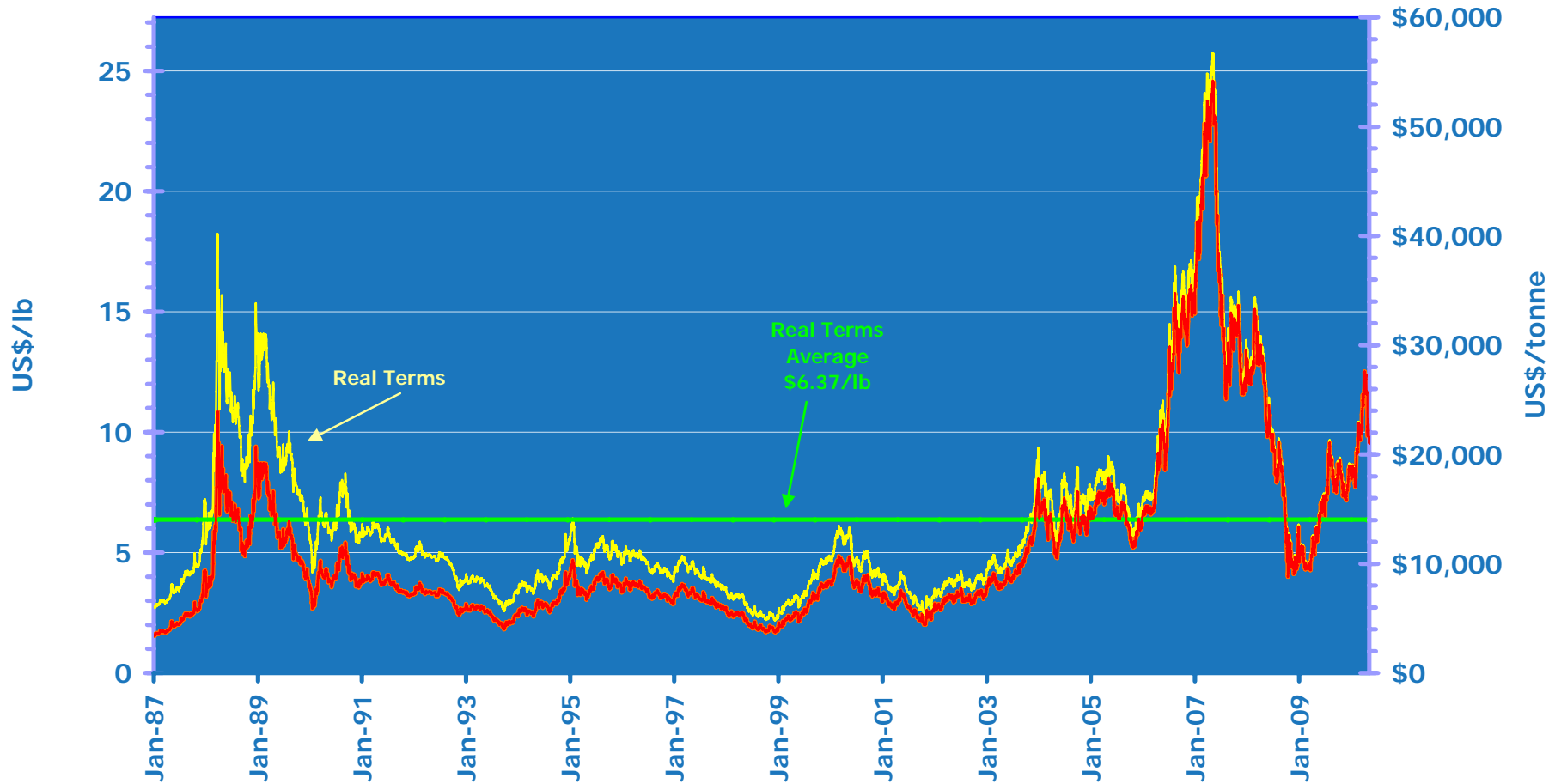
Stainless steel production growth in China has averaged 33% pa over the last ten years

China's Stainless Steel Production



Current price levels above real long-term average

Daily Nickel Settlement Prices 1987 to 24 May 2010



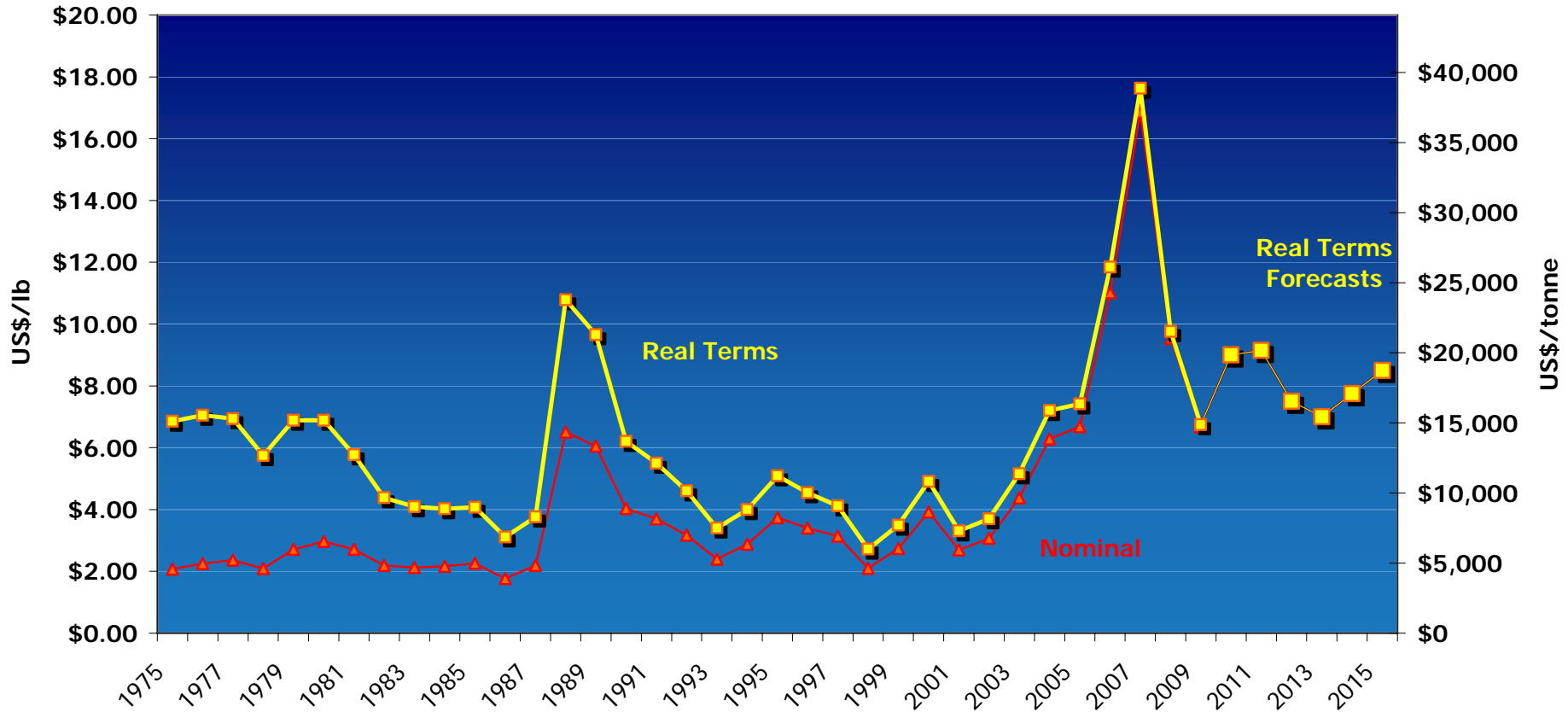
World Primary Nickel Supply-Demand Outlook

		2008	2009	2010	2011	2012	2013
Stainless Steel Production	kt	26,450 -6.5%	25,150 -4.9%	29,000 15.3%	31,500 8.6%	33,500 6.3%	35,200 5.1%
Primary Nickel Consumption	kt	1,290 -5.5%	1,310 1.6%	1,435 9.5%	1,510 5.2%	1,595 5.6%	1,660 4.1%
Primary Nickel Supply	kt	1,395 -2.5%	1,330 -4.7%	1,400 5.3%	1,530 9.3%	1,630 6.5%	1,705 4.6%
Market balance	kt	105	20	-35	20	35	45
LME Cash Price	US\$/t	21,027	14,700	19,850	20,175	16,530	15,425
	US\$/lb	9.54	6.67	9.00	9.15	7.50	7.00

(forecasts in real 2010 terms)

Metalytics' Nickel price forecast

LME Cash Nickel Prices - Annual Averages with forecasts to 2015



Thank You!

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China Nickel 2010

Shanghai, May 26-27 2010

John Barkas

john.barkas@metalytics.com.au

Ph +61 2 9225 6400