

# **2010 Saskatoon Cambridge Conference**

**Saskatoon, Canada**

**May 7, 2010**

**Presented by John Kaiser**



**Economic Logic & Security of Supply**

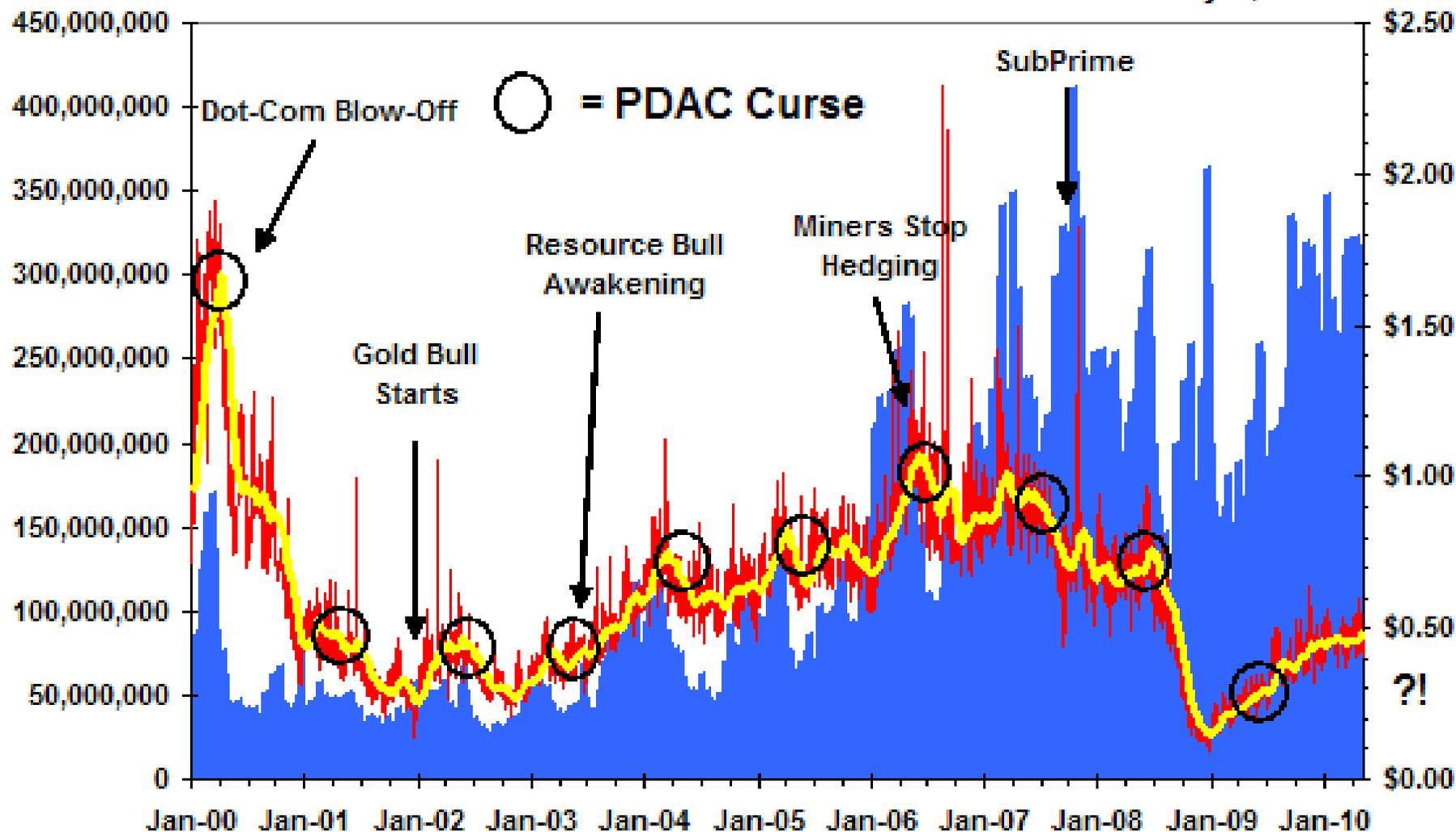
**[www.KaiserBottomFish.com](http://www.KaiserBottomFish.com)**

# Daily TSXV Volume and Average Trading Share Price



Volume — Average Share Price — 30 Day Average Price

May 6, 2010



PDAC Curse: the tendency of the new year rally to fizzle right after the PDAC mining convention held annually in March in Toronto.

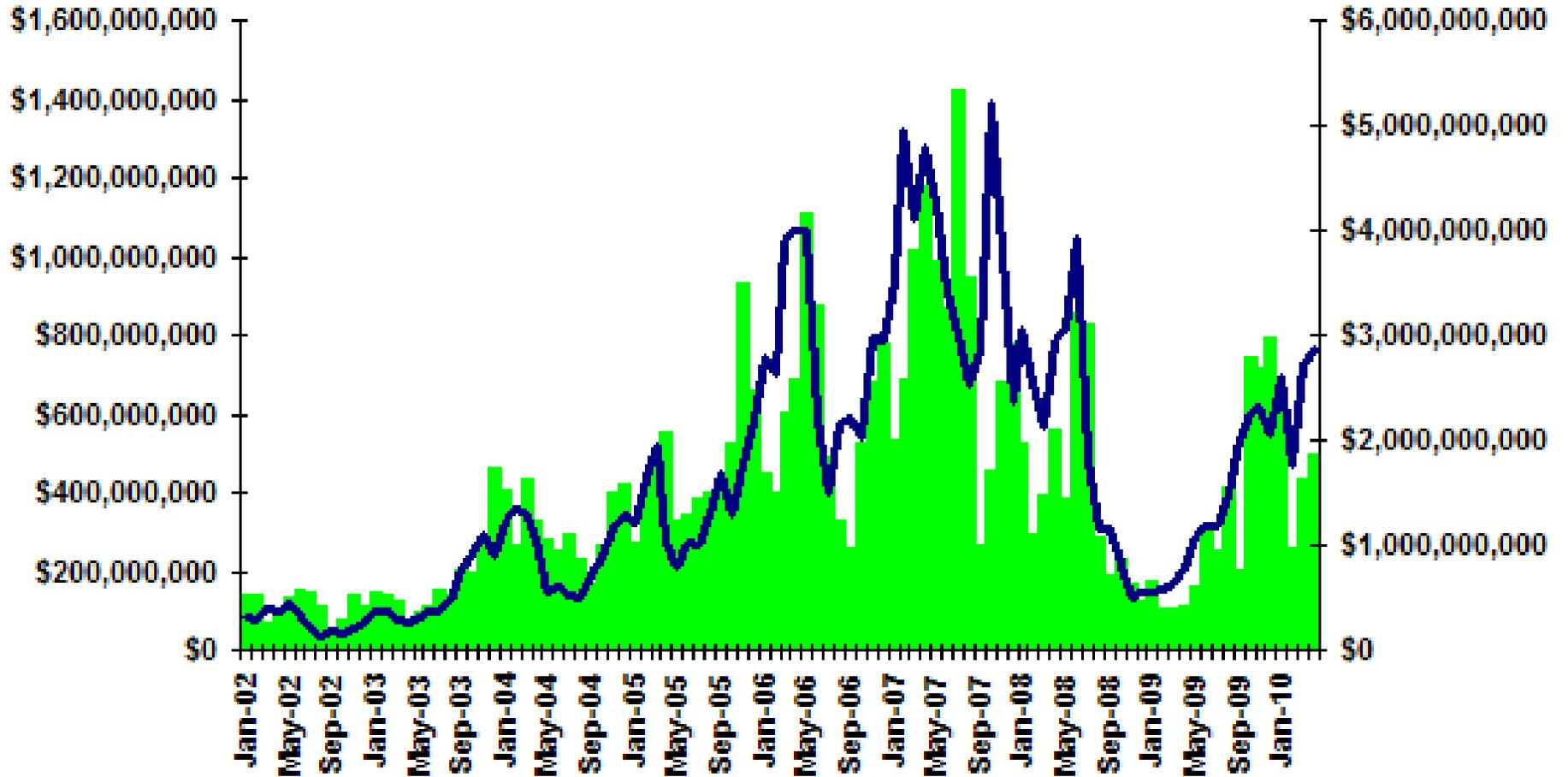


# TSXV Private Placement Activity

**\$40 billion raised / \$163 billion traded**

PP Value

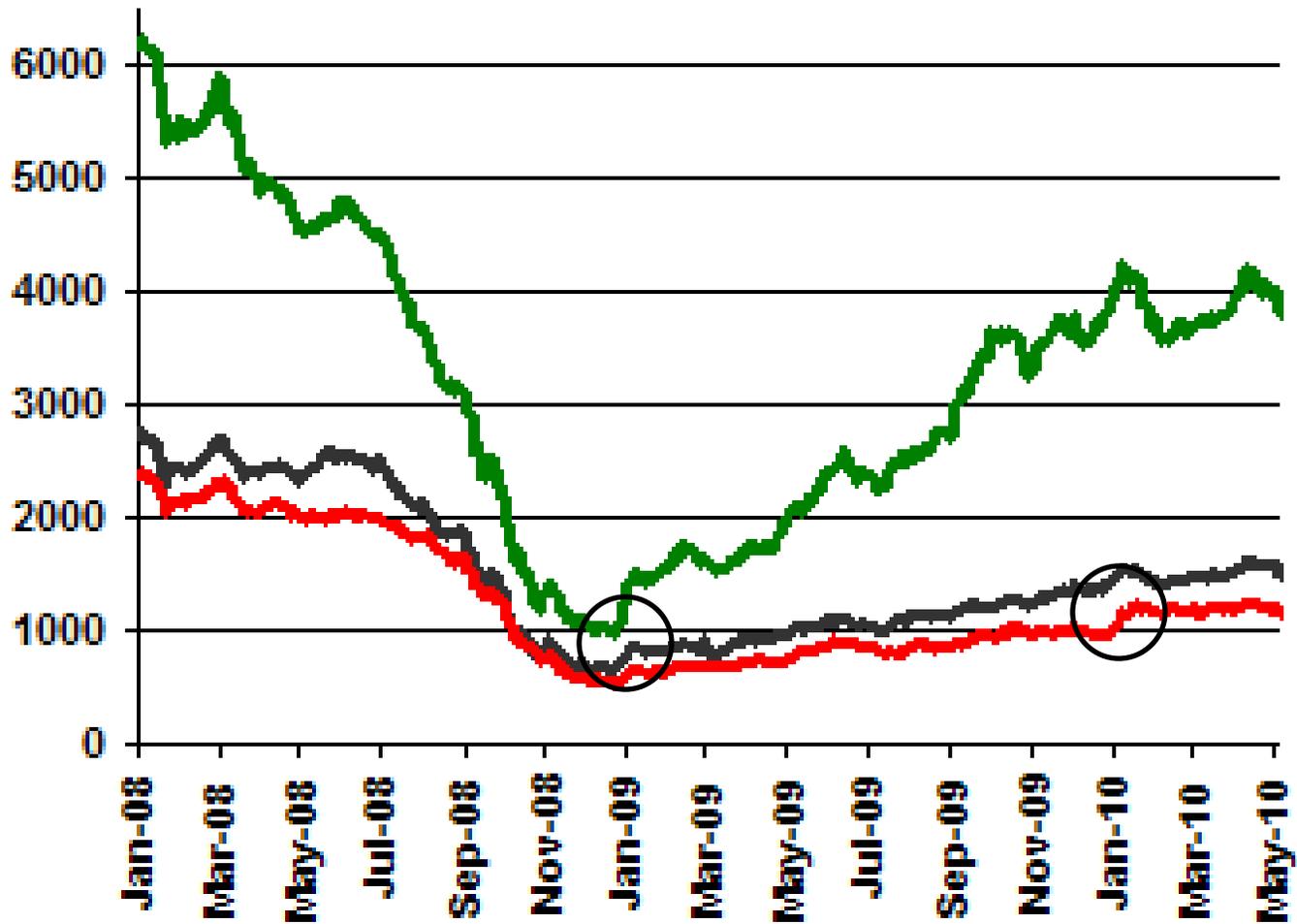
Trade Value



■ Monthly Value of Financings  
— Monthly Value Traded

# KBFO Bottom-Fish Indices

May 6, 2010



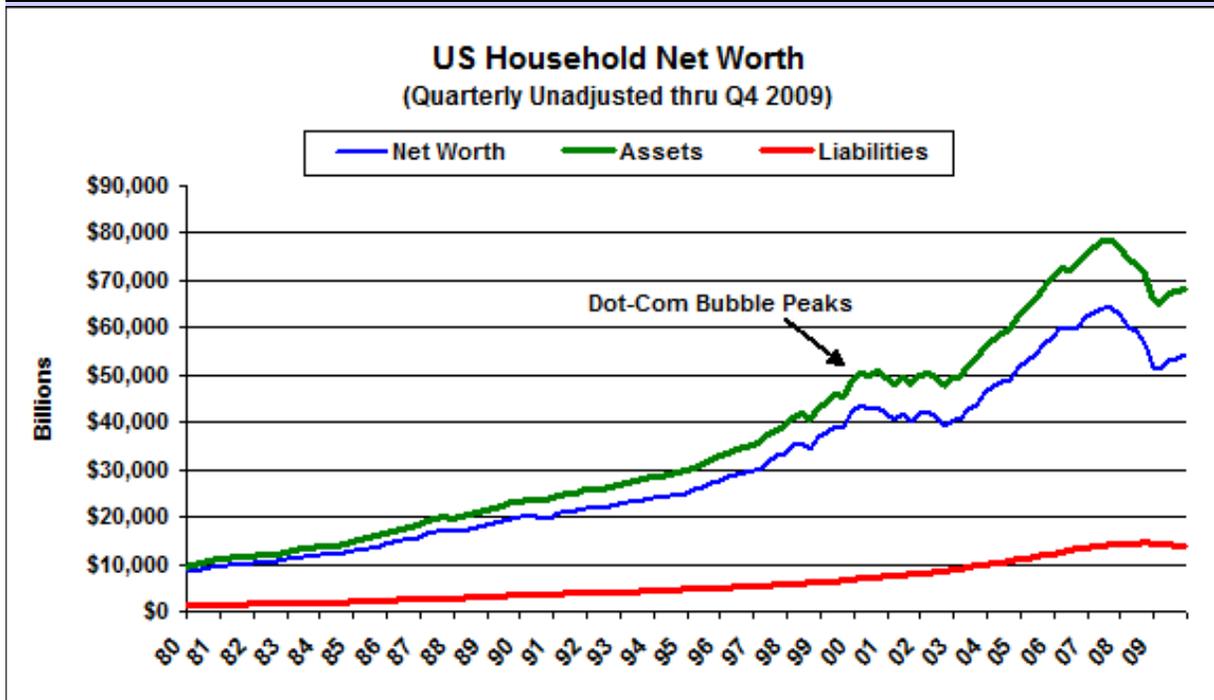
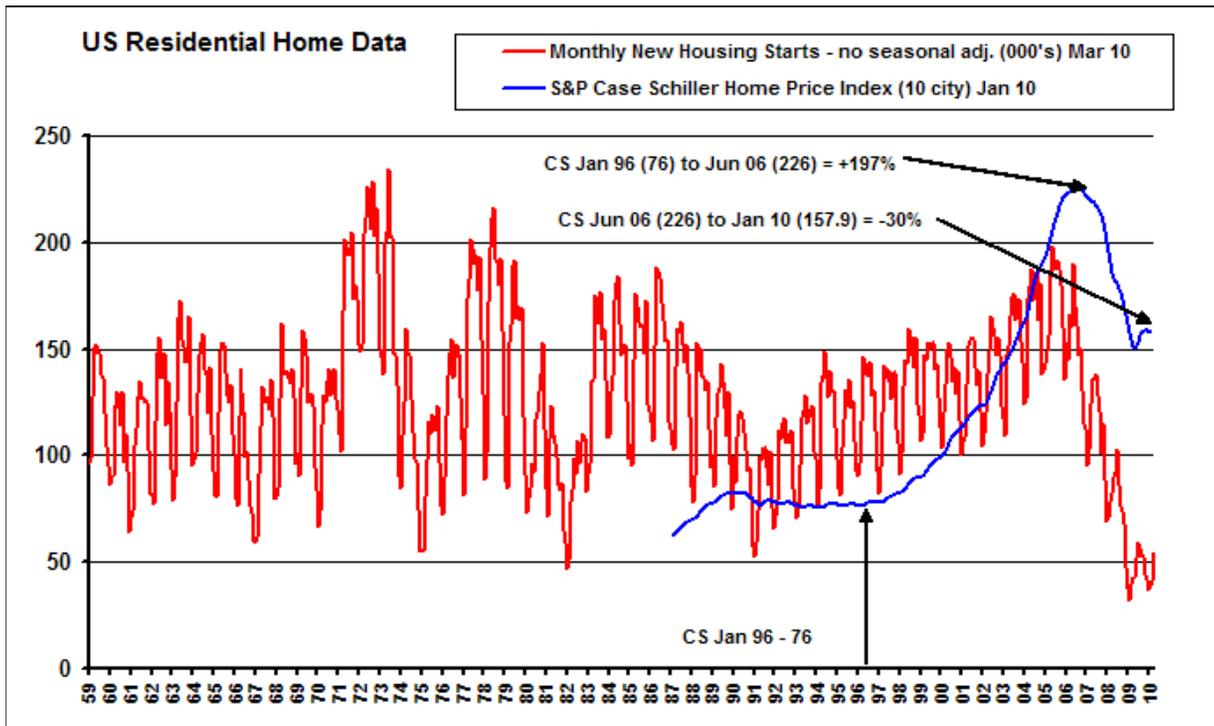
- TSXV Index 1043 normalized to 1000 on Jan 2, 2002
- Bottom-Fish 2009 normalized to 1,000 on Dec 24, 2008
- Bottom-Fish 2010 normalized to 1,000 on Dec 31, 2009

# **Three Shaken Assumptions**

- **Mortgage Securitization as Wealth Creation**
- **Globalization & the virtue of the China Price**
- **American Hegemony & the US Dollar as Global Reserve Currency**

## **Three Implications**

- **A rising real price for gold as investment demand responds to currency volatility**
- **Fragmentation of the Global Economy as environmental protectionism leads to geographically constrained economic zones**
- **Strategic Logic eclipses Economic Logic in the valuation of raw material assets as Security of Supply concerns escalate**

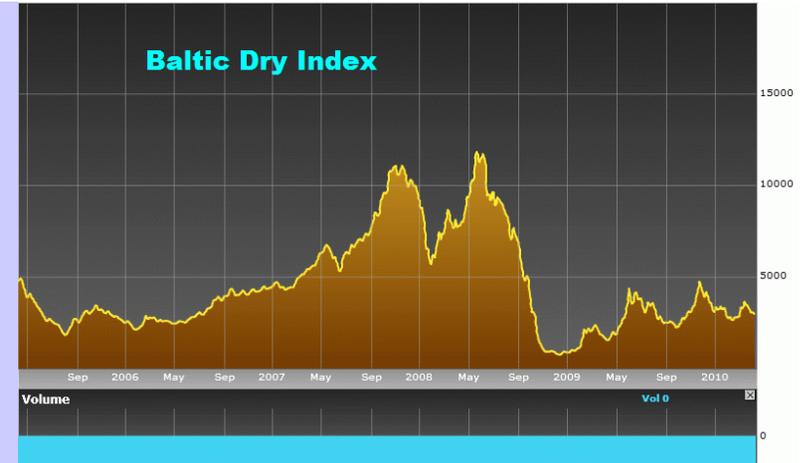


**The Rise & Fall of the American Dream:**  
Mortgage securitization creates a Global Real Estate Bubble and a Consumption Boom by dissolving the traditional self-regulating relationship between lender and borrower. The result: **Game Over.**



# The Chinese Anomaly

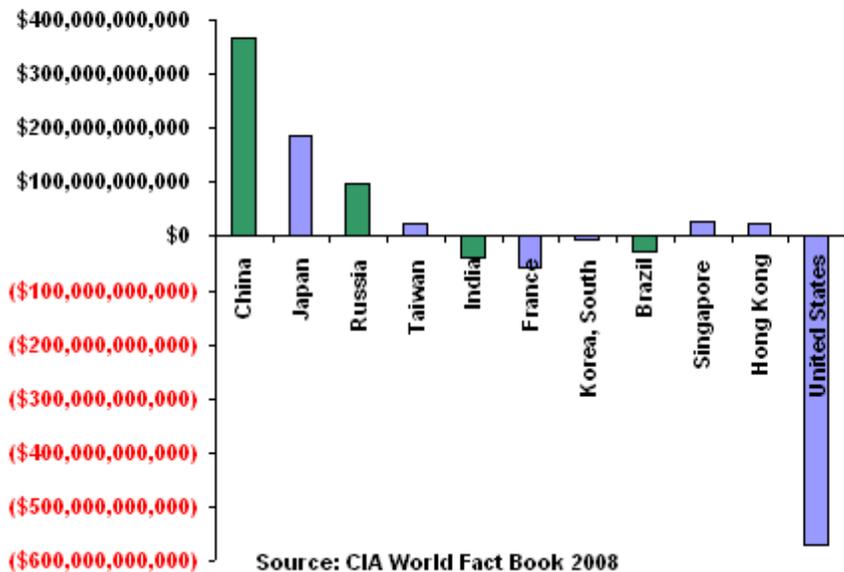
- Hybrid central command economy with outsourced production
- Cheap Labor – urbanization of 1 billion rural Chinese unleashed by the end of orthodox communism
- No Health & Safety for Workers
- No environmental emission controls
- No Unions to secure medical or pension benefits
- US Dollar Peg: the devil's bargain of maintaining an undervalued renminbi by bankrolling the US trade deficit through the accumulation of US treasury debt
- FDI: foreign direct investment and technology transfer



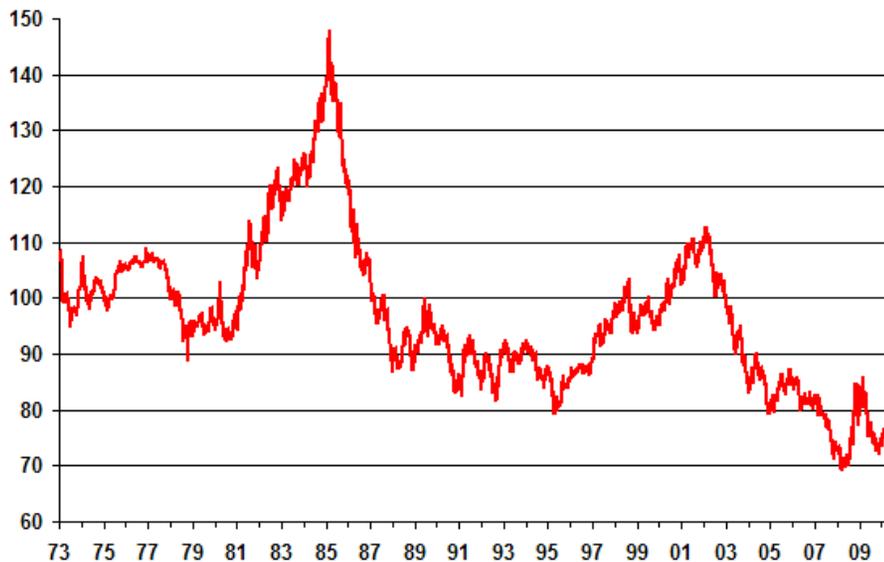
**Capitalism's  
Mandate:  
mobilize  
capital to the  
place with the  
lowest cost  
structure**

# Consequences of deep cost structure disparities

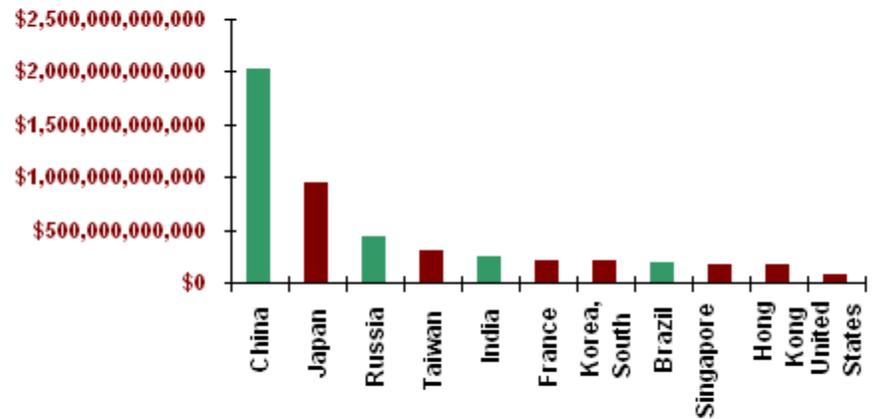
Current Account Balance



US Dollar Major Currency Index  
(Downtrend = weakening US \$)



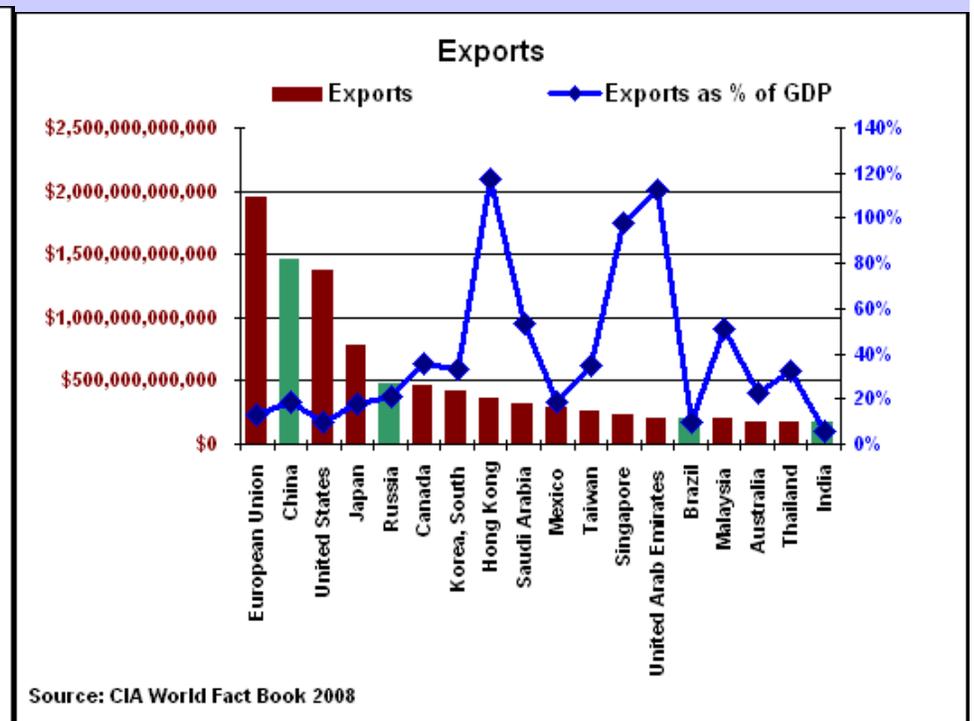
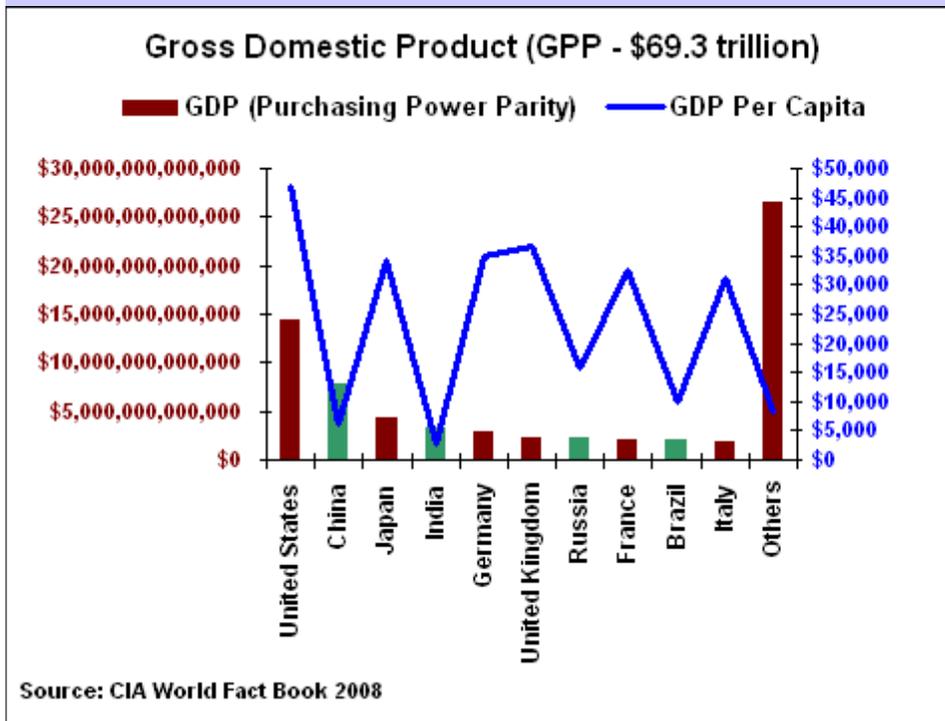
Foreign Reserves including Gold



**In a New World Order where military power is impotent, one-way trade in IOUs is no longer an option, climate change and oil import dependency are equally undesirable, and the China Price remains cheapest:**

**What will Americans do that is of value to the rest of the world?**

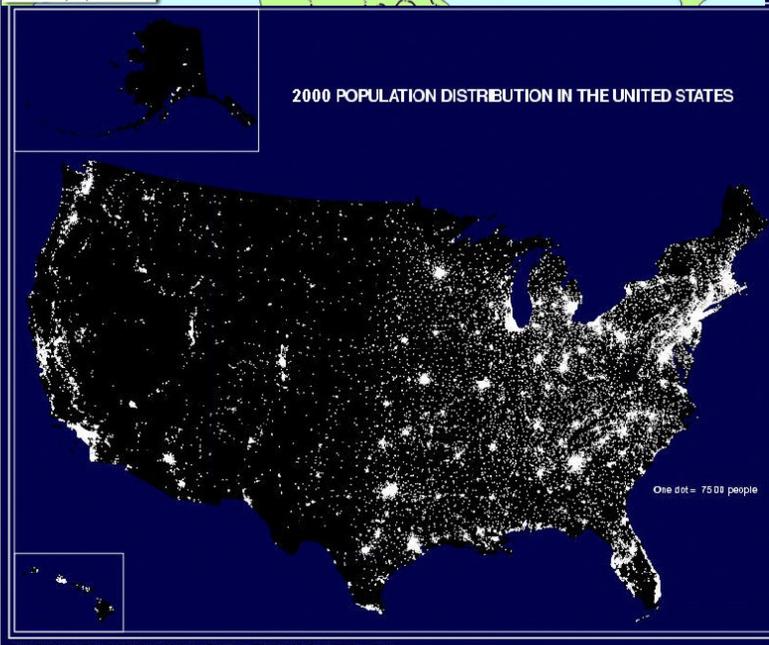
**What will the Chinese do to keep their economy growing?**



# China's Solution: Borrow a chapter from American History

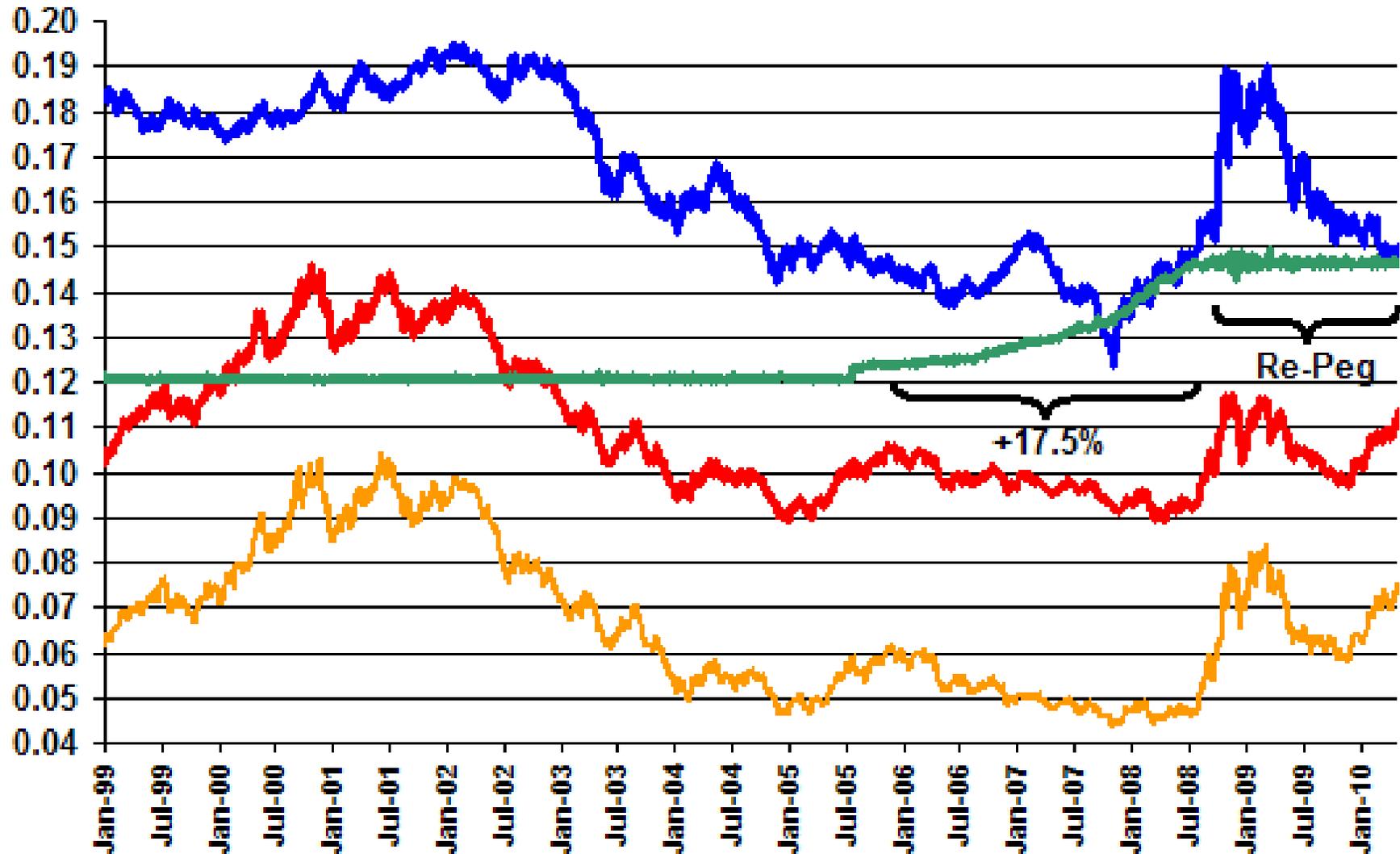
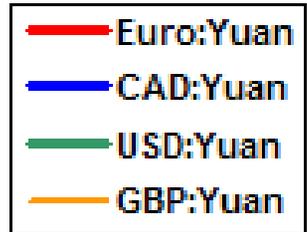


- Extend infrastructure into the hinterland to boost its domestic economy, reduce dependency on exports, and defuse the social tension between the coastal “haves” and the inland “have nots” – cost = \$585 billion
- Develop “clean” energy and transportation infrastructure so that China can enjoy its “manifest destiny” several decades from now.
- Reduce 35% savings rate by boosting social and health welfare expenditures
- Gradually convert its US paper assets into title to hard assets around the world.
- Invest heavily in pure research in order to win the technology race to develop a new energy foundation for the world
- China is the America of Tomorrow

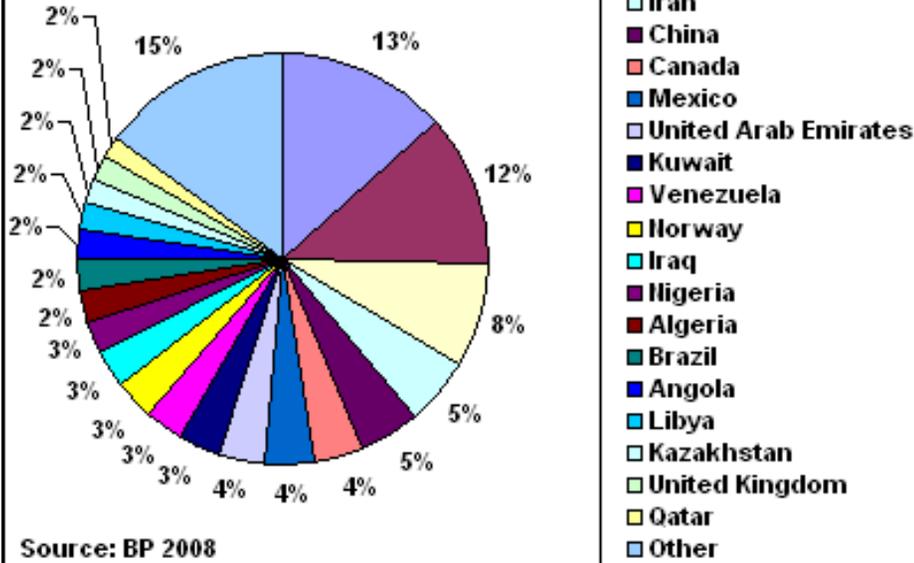


# Currency Exchange Rates

Per Chinese Renminbi (Yuan)  
(Downtrend = weakening Yuan)

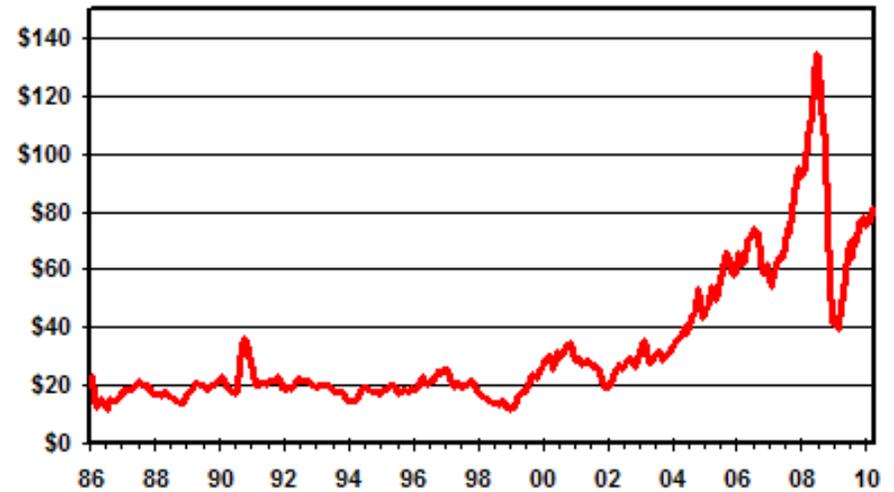


**Global Crude Oil Production**  
2008 Total: 29.9 billion bbl  
\$2.1 trillion at \$70 / bbl

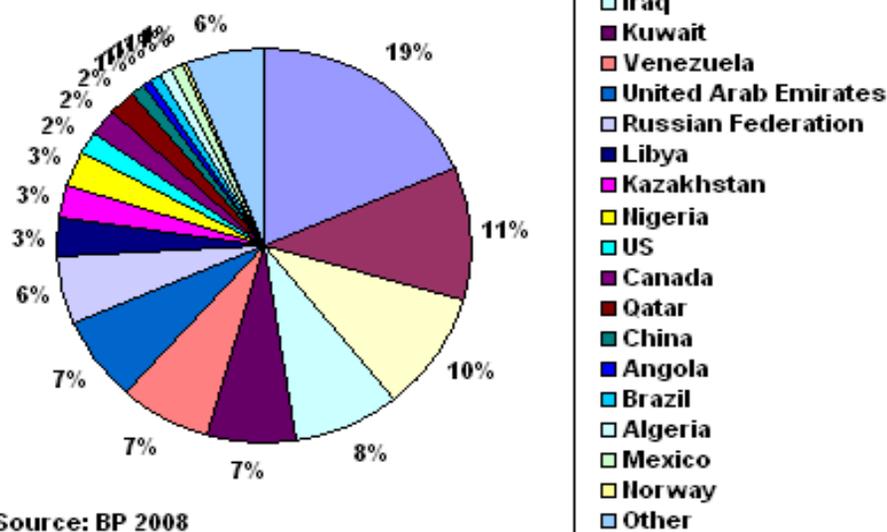


Source: BP 2008

**Monthly Average Prices**  
US \$/barrel

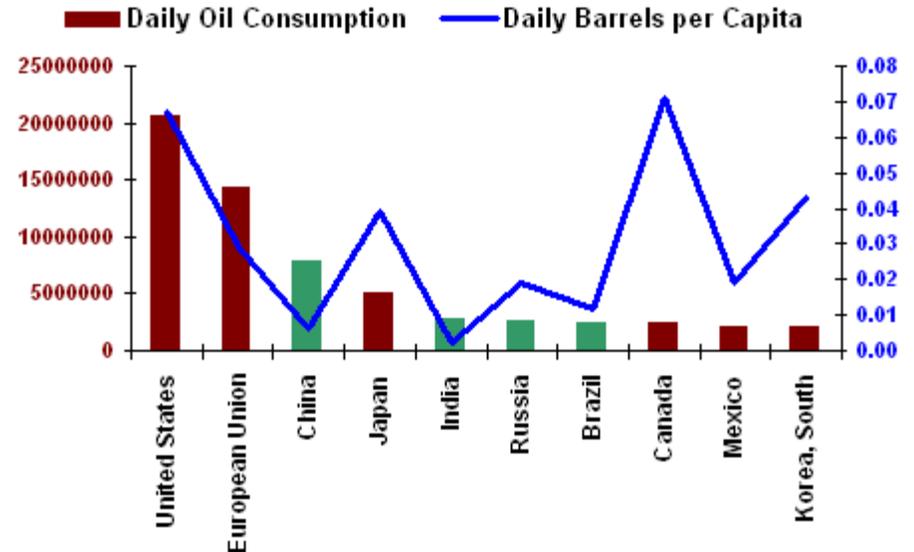


**Global Crude Oil Reserves**  
2008 Total: 1.4 trillion bbls  
\$98 trillion at \$70 / bbl



Source: BP 2008

**Daily Oil Consumption (85.2 million bbl global)**

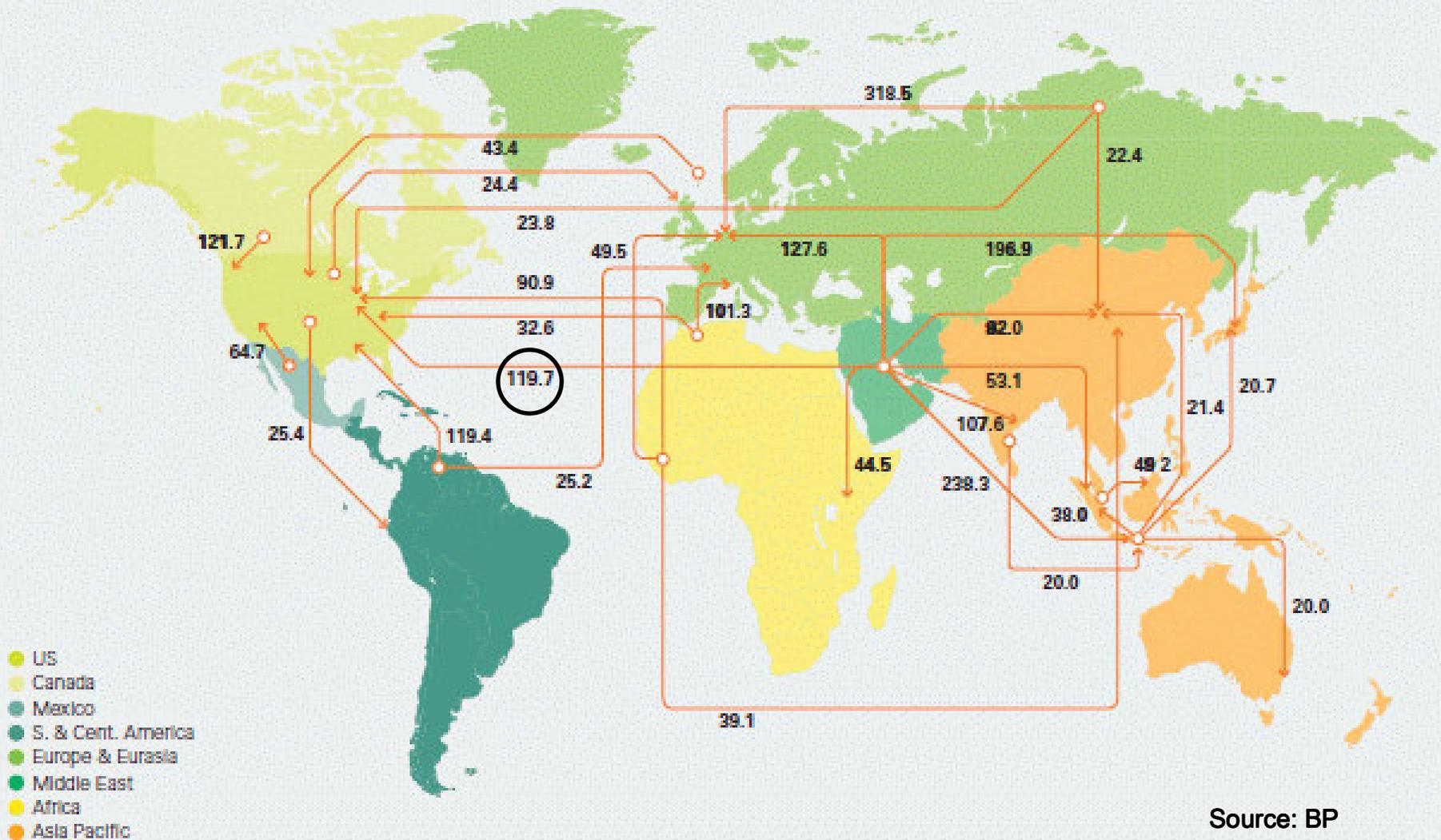


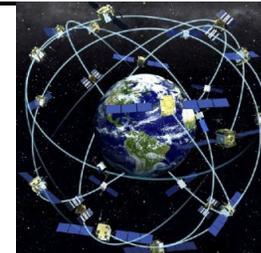
Source: CIA World Fact Book 2008

# Oil Trade Flows

## Major trade movements 2008

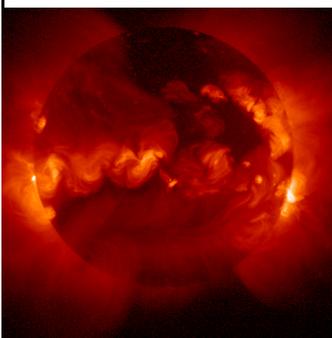
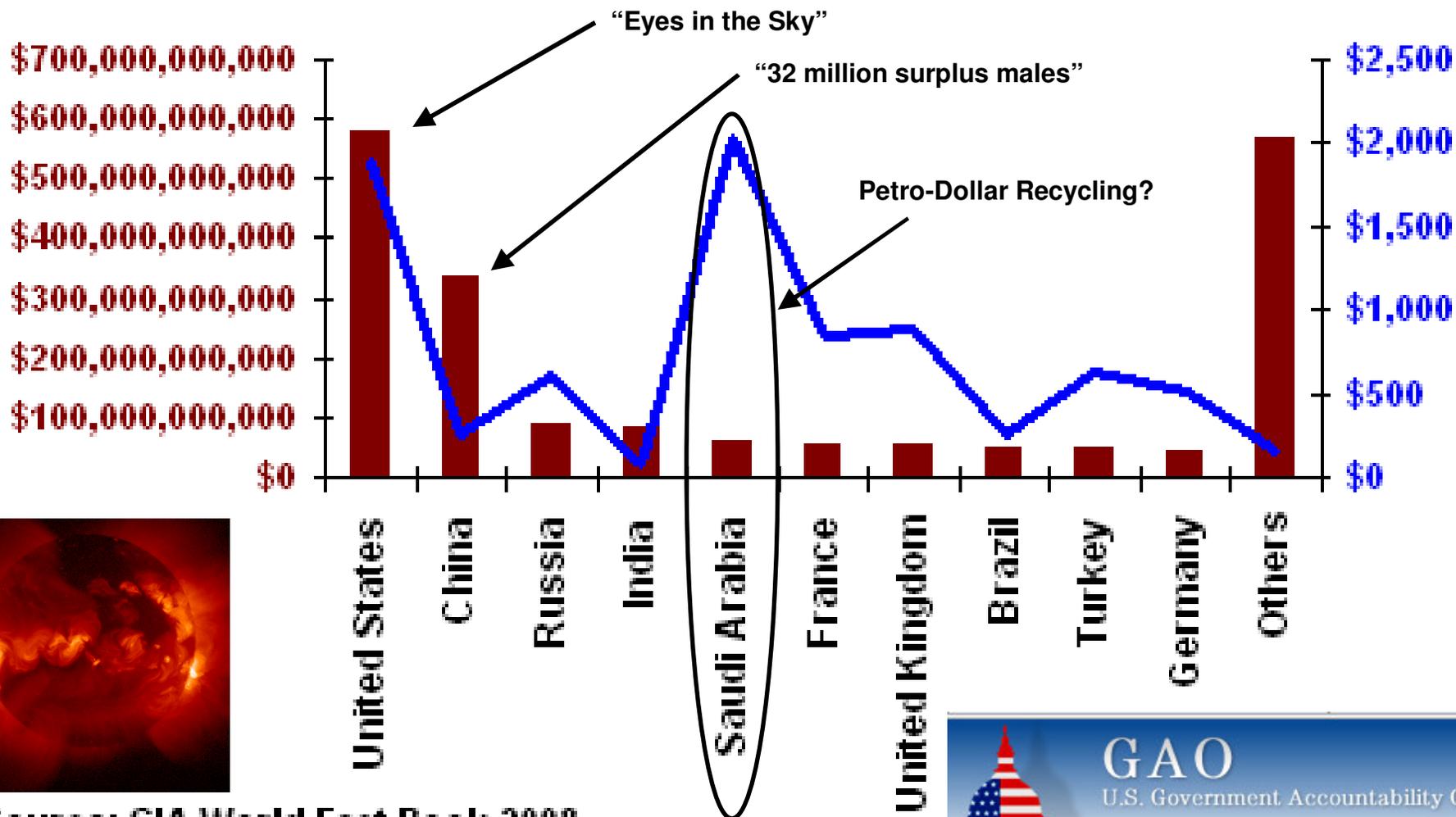
Trade flows worldwide (million tonnes)





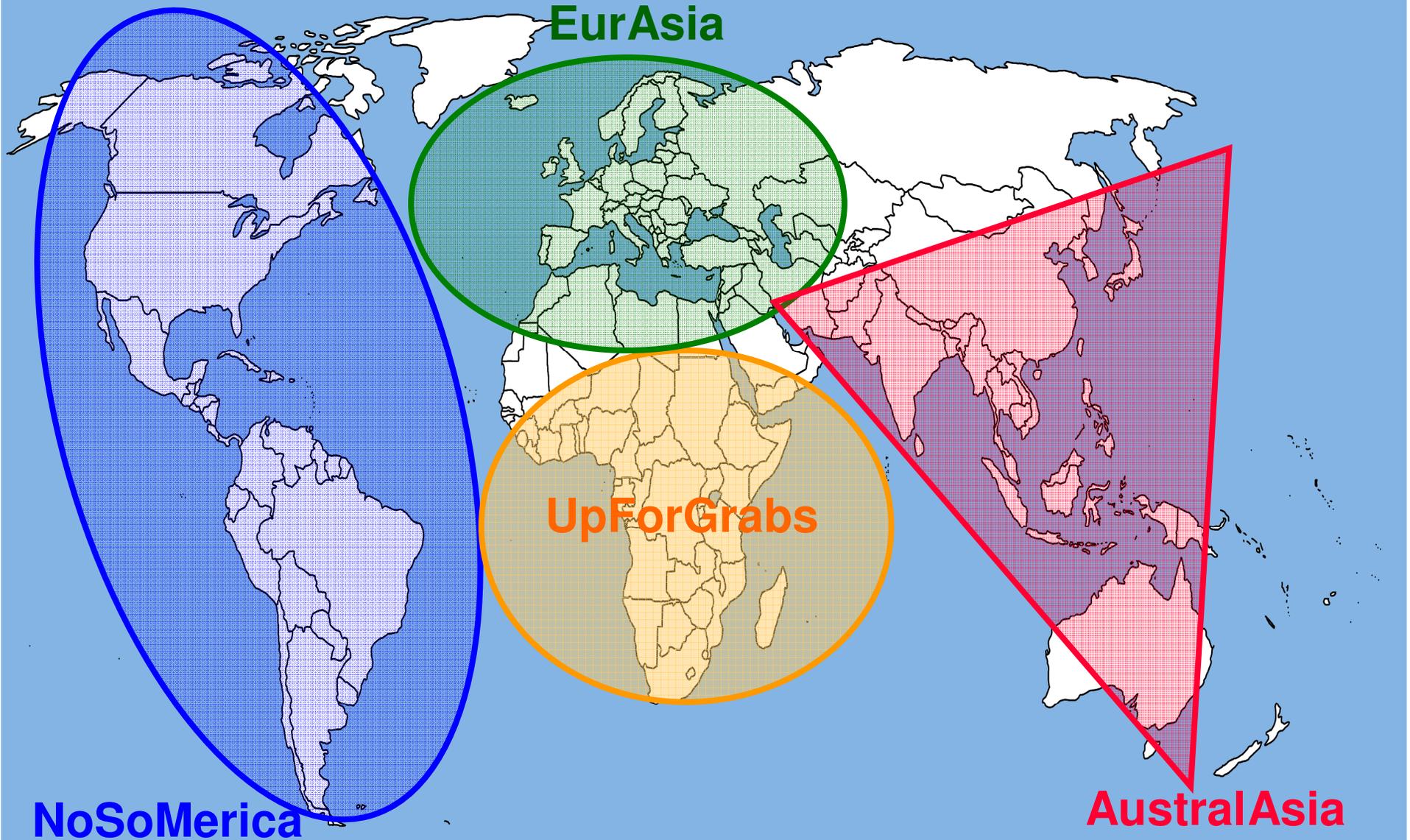
# Annual Military Expenditure (\$1.4 trillion)

■ Total Expenditure      — Per Capita Expenditure



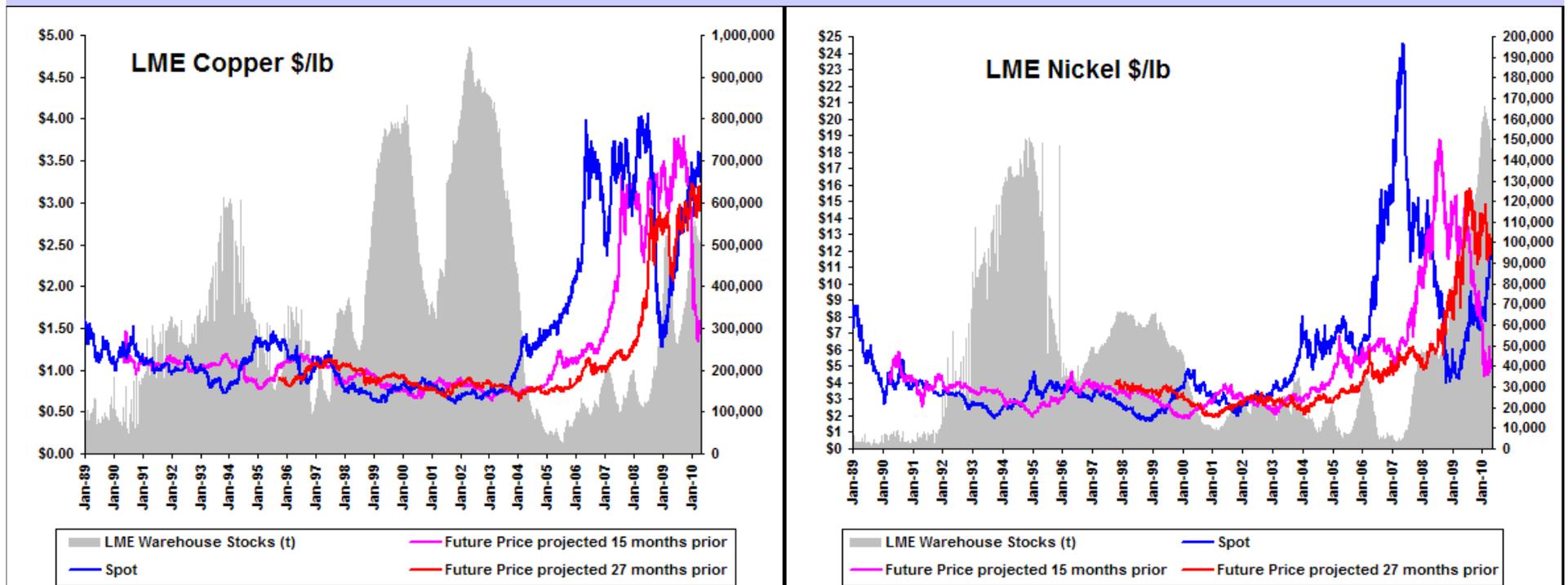
Source: CIA World Fact Book 2008

# Post-Globalization Economic Zone Fragmentation



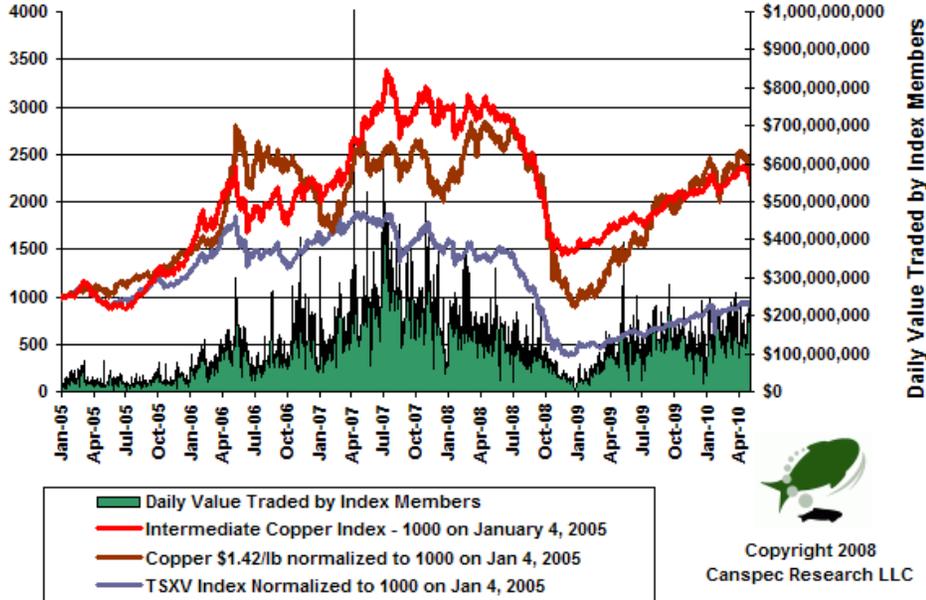
# Economic vs Strategic Logic

- Price discovery through futures commodity markets becomes chaotic
- Cost structure in so far that self-sufficiency within a closed system has not been achieved becomes unpredictable
- Economic analysis involving discounted value of future cash flows becomes pure guesswork
- Mine development focuses on large systems with sweet spots allowing for rapid capital cost payback
- The survivors will be those who have title to the means of production and security of supply with regard to the raw material inputs



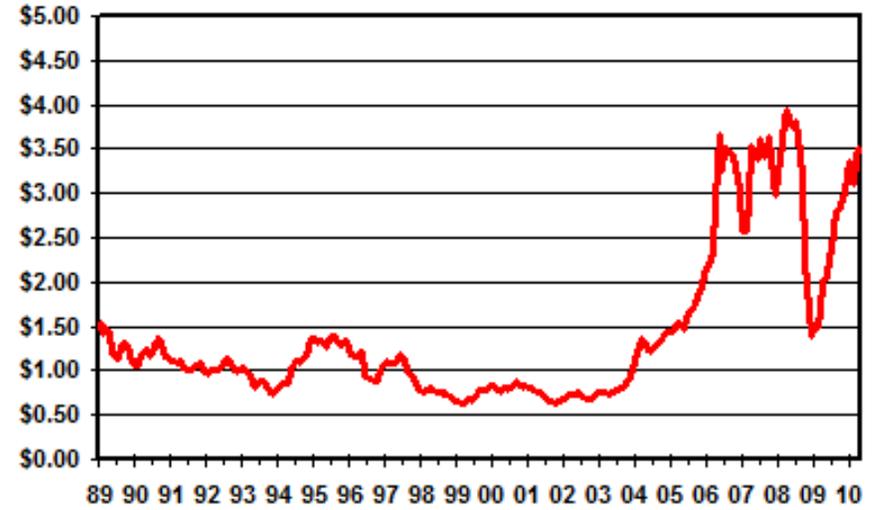
### Intermediate Copper Index

May 5, 2010



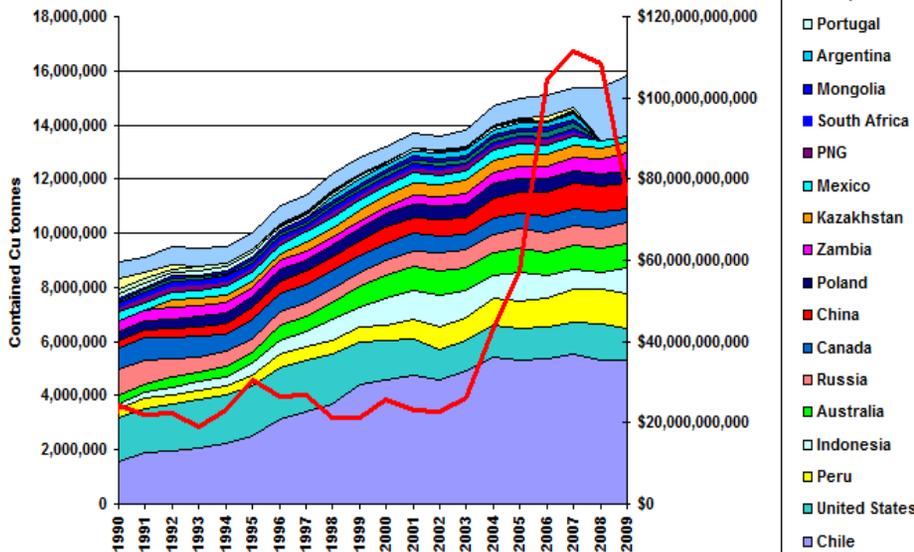
### Monthly Average Prices US \$/lb

Copper LME

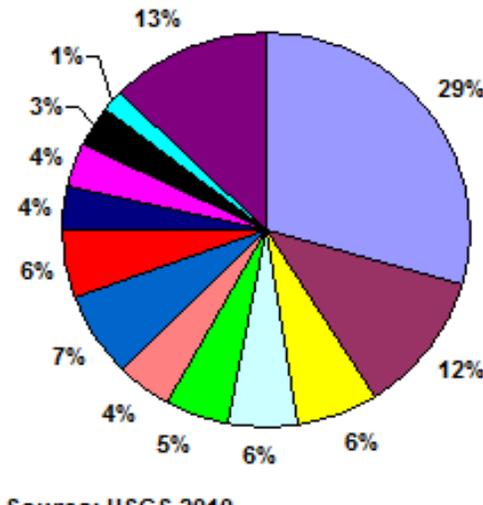


### Annual Copper Production

Production Data Source: USGS  
Annual Production Value based on average annual copper price



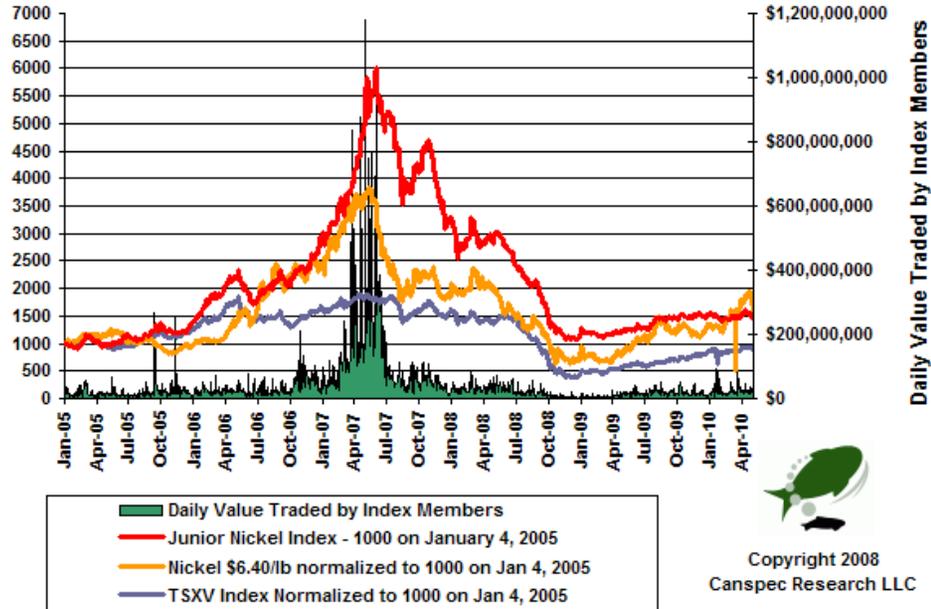
### Global Copper Resource 2009 Total: 1.2 trillion lbs \$2.8 trillion at \$2.34 / lb



Source: USGS 2010

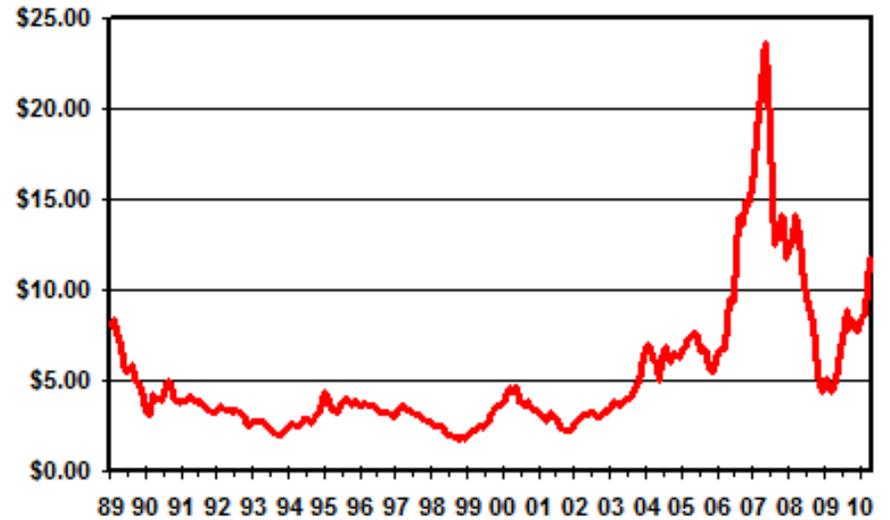
### Junior Nickel Index

May 6, 2010



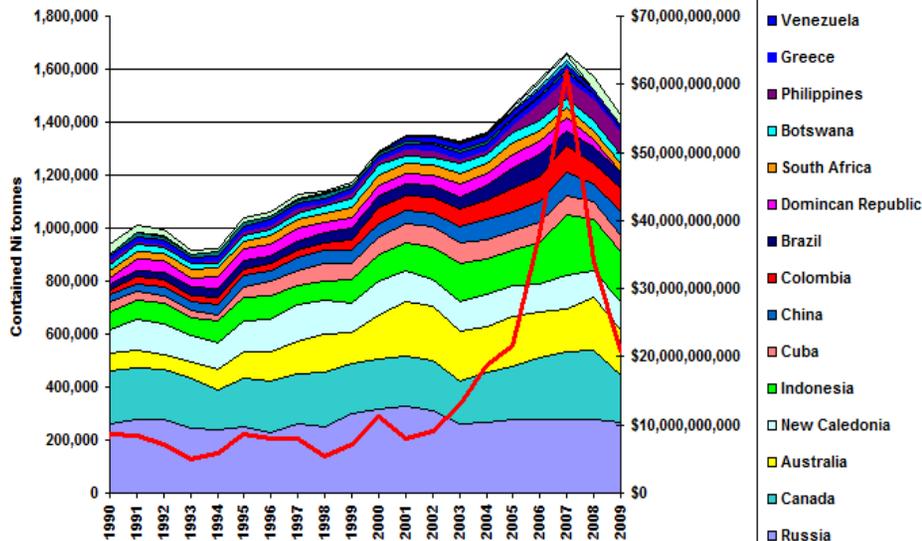
### Monthly Average Prices US \$/lb

Nickel LME

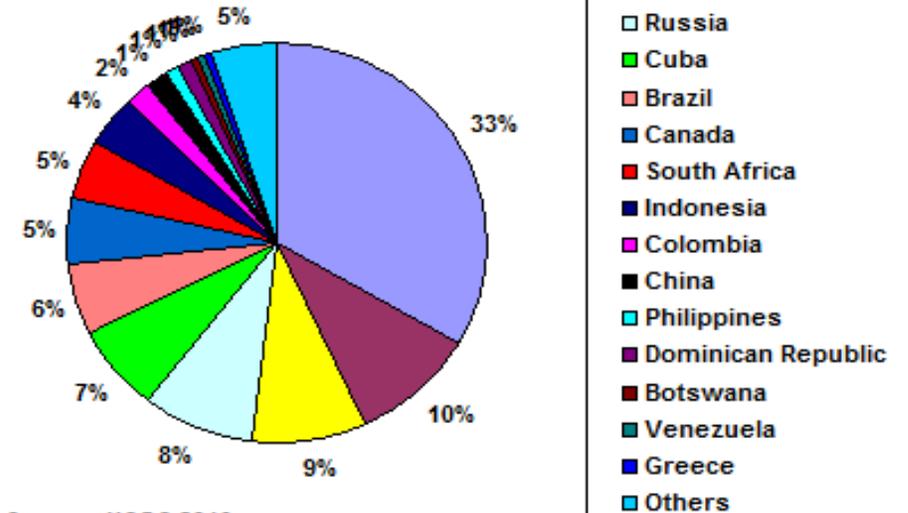


### Annual Nickel Production

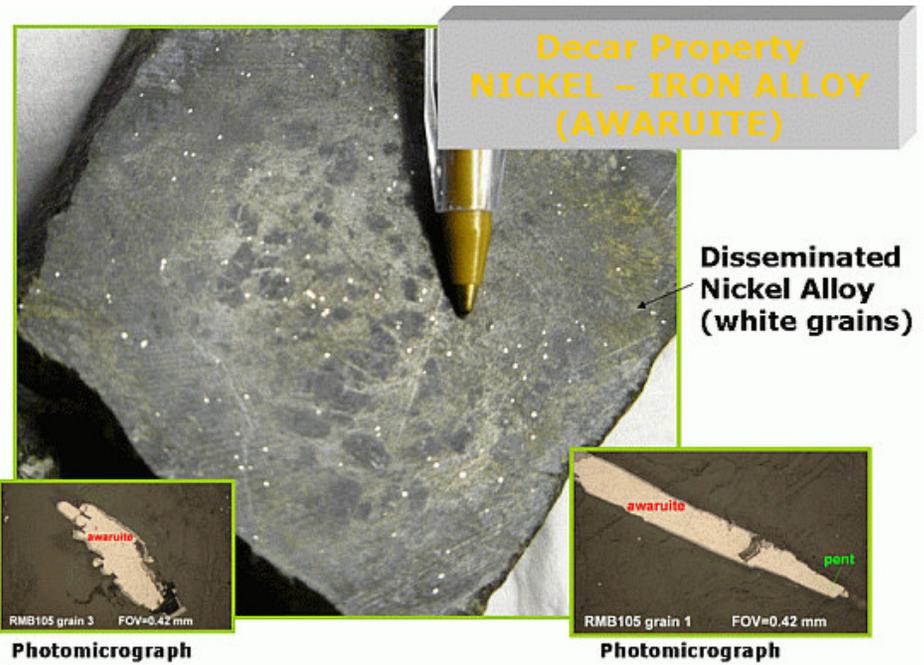
Production Data Source: USGS  
Annual Production Value based on average annual nickel price



### Global Nickel Resource 2009 Total: 571 billion lbs \$3.8 trillion at \$6.65 / lb



Source: USGS 2010

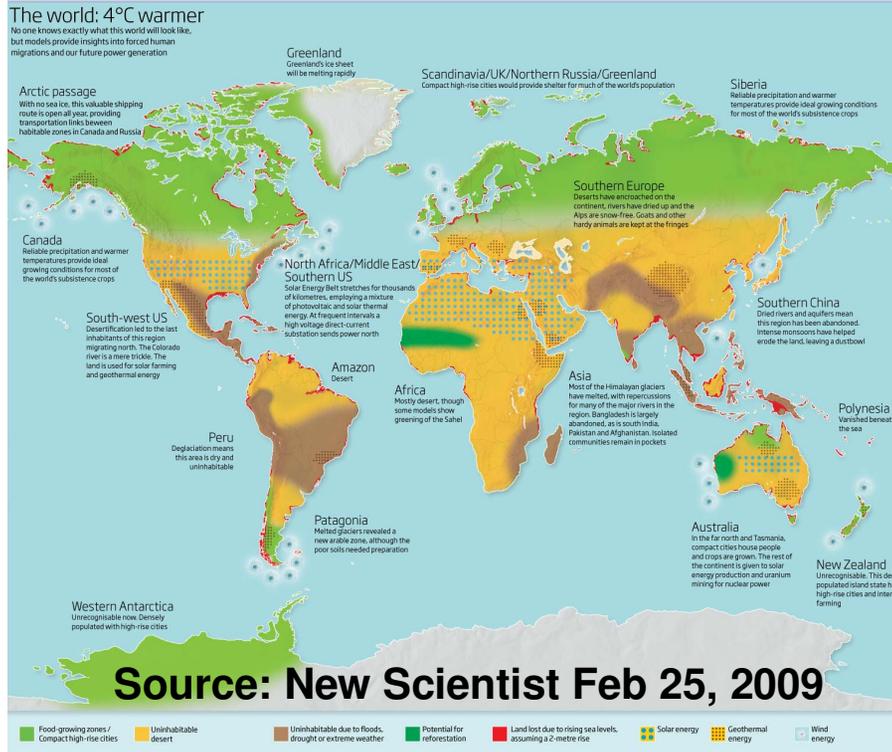


## Two Different Strategic approaches to nickel

Project Resource Estimate - Mayaniquel - saprolite							
Apr 9, 2009	NI 43-101	Don Tschabrun, Tetra Tech			Cutoff: 1.0% Ni		
Resource Category	Tonnage	Total Rock Value	Metal	Grade	Recovery	Contained Metal	% of GMV
Indicated Resources	11,230,000	\$335/t	Nickel	1.570%	100.0%	388,692,681 lb	100%
Inferred Mineral Resources	17,000,000	\$312/t	Nickel	1.460%	100.0%	547,178,131 lb	100%
<b>All Categories Spot</b>	<b>28,230,000</b>	<b>\$321/t</b>	<b>Nickel</b>	<b>1.504%</b>		<b>935,870,811 lb</b>	<b>100%</b>
<b>All Categories LTA</b>	<b>28,230,000</b>	<b>\$366/t</b>	<b>Nickel</b>	<b>1.504%</b>		<b>935,870,811 lb</b>	<b>100%</b>
<b>Spot Gross Metal Value</b>		<b>Market Cap as % of Net GMV</b>		<b>Spot Prices Used</b>			
\$9,068,588,161		0.9%		Nickel \$9.69/lb			

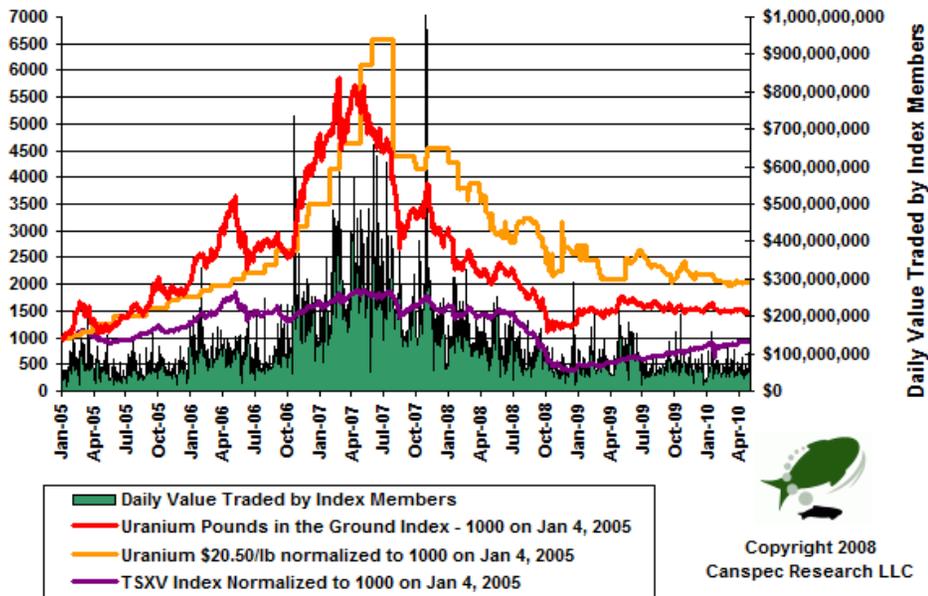
# Transforming the Energy Foundation of the World

Power Cost Structure	Coal			Natural Gas			Oil/Gasoline			Hydro			Nuclear			BioFuels			Renewables (Solar/Wind)		
	High	Mod	Low	High	Mod	Low	High	Mod	Low	High	Mod	Low	High	Mod	Low	High	Mod	Low	High	Mod	Low
Capital Cost	Red				Yellow				Green	Red			Red				Yellow		Red		
Operating Cost		Yellow			Yellow				Green				Red				Yellow				Green
Fuel Cost		Yellow						Yellow				Green			Green		Yellow				Green
Emission Cost	Red				Yellow			Red				Green		Yellow				Green			Green
Opportunity Cost		Yellow				Green			Green		Yellow				Green	Red					Green
Fuel Supply Risk			Green			Green		Red				Green		Yellow				Green			Green

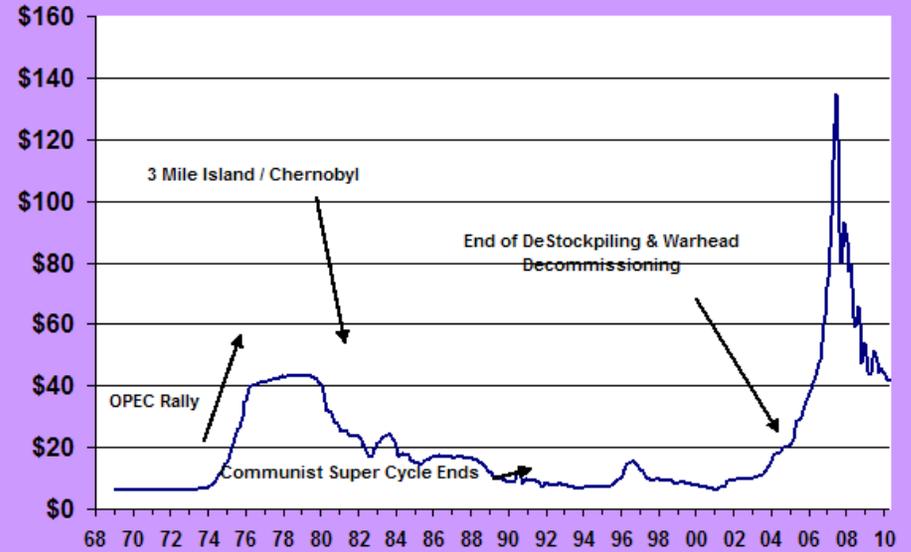


### Uranium Pounds in the Ground Index

May 5, 2010



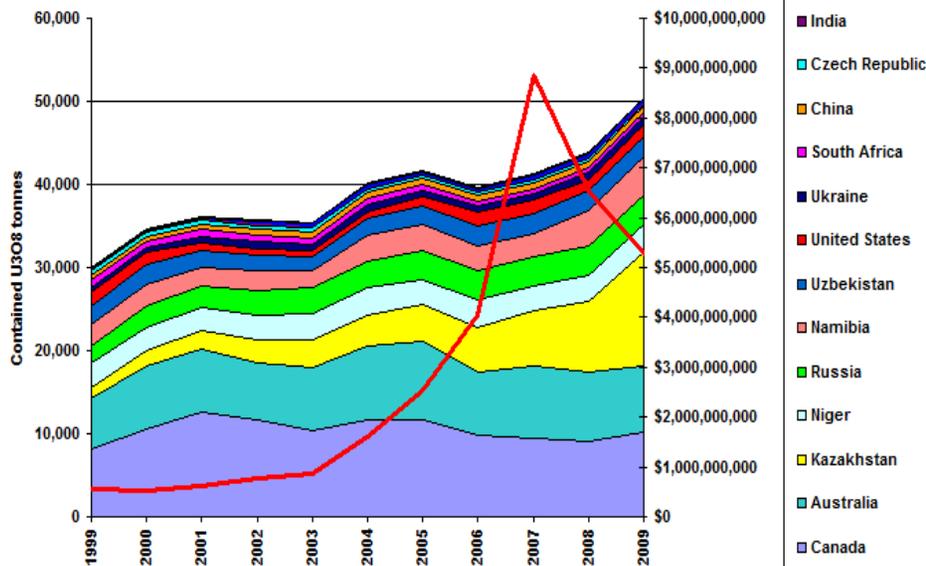
### Average Monthly Uranium US \$/lb U3O8



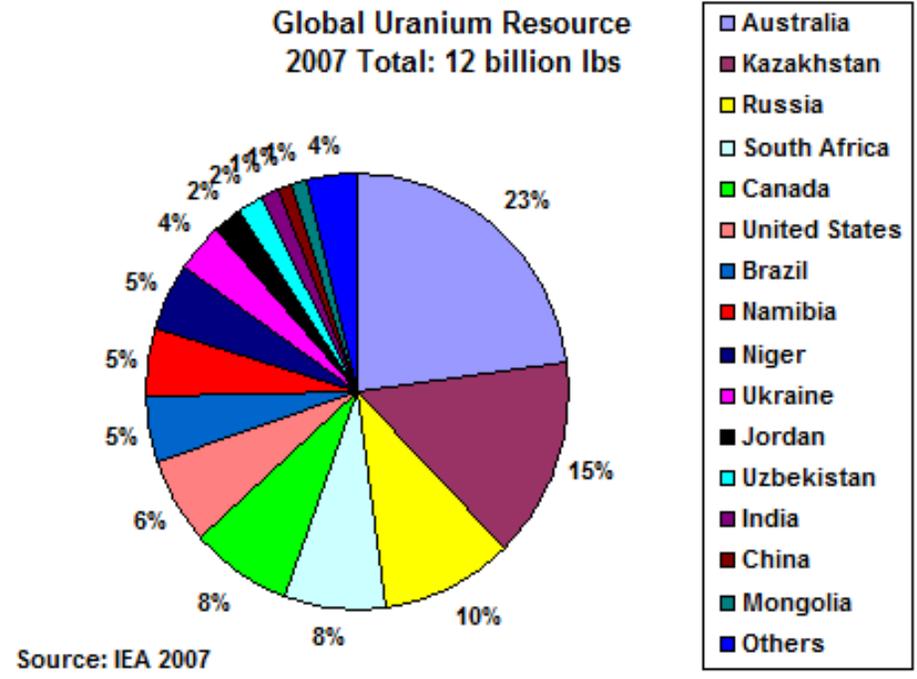
### Annual Uranium Production

Production Data Source: USGS

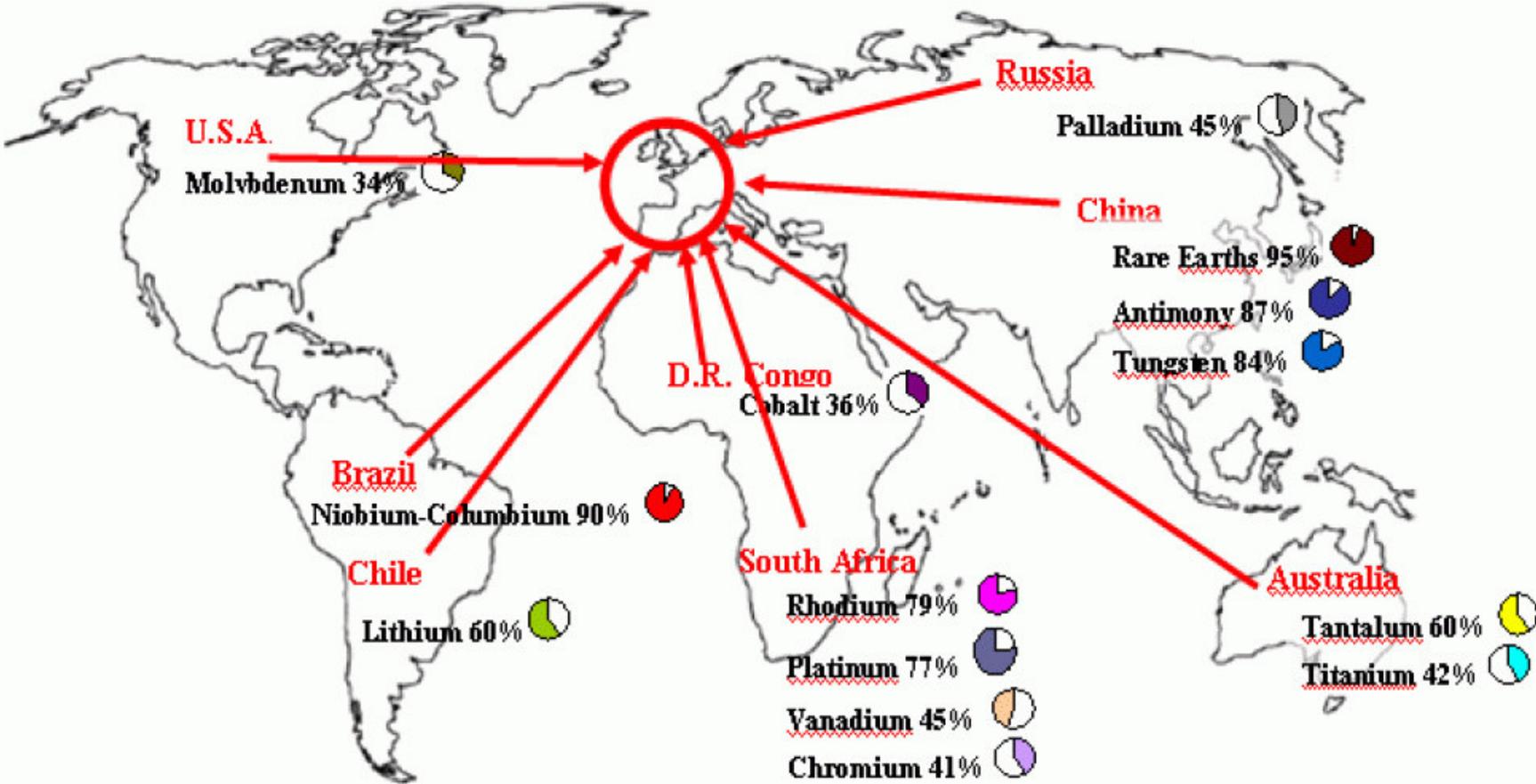
Annual Production Value based on average annual uranium price



### Global Uranium Resource 2007 Total: 12 billion lbs



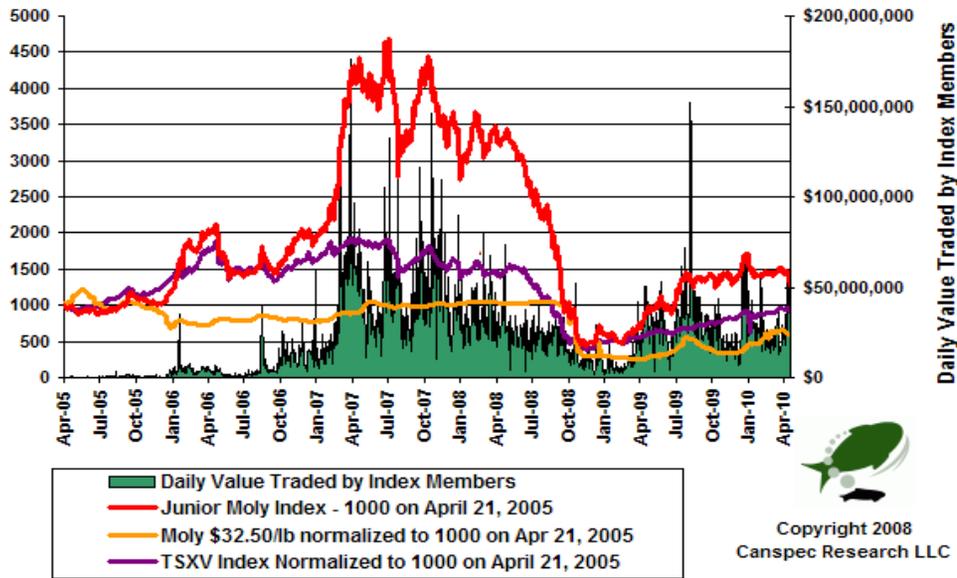
# Security of Supply for Critical Materials is becoming an issue for Europe, Japan and the United States as China moves to secure its own needs.



Source: EC Commission – The Raw Materials Initiative

### Junior Moly Index

May 6, 2010



### Monthly Average Prices US \$/lb

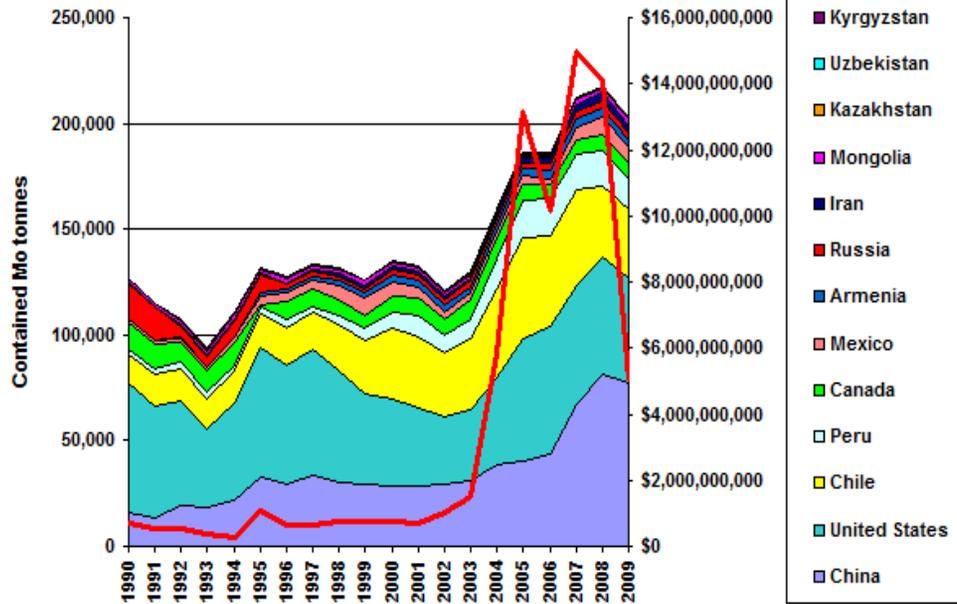
Molybdenum MoO3



### Annual Molybdenum Production

Production Data Source: USGS

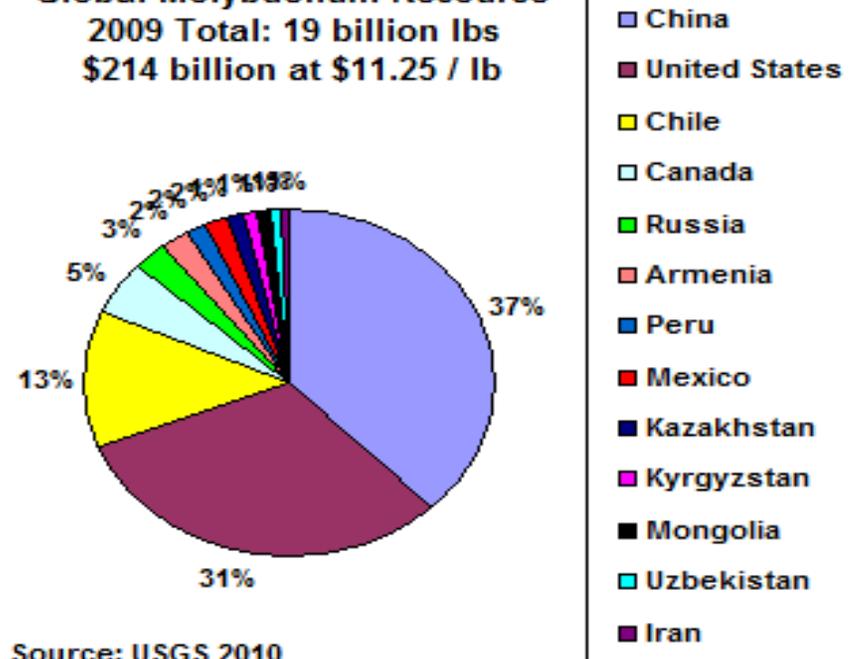
Annual Production Value based on average annual MoO2 price



### Global Molybdenum Resource

2009 Total: 19 billion lbs

\$214 billion at \$11.25 / lb



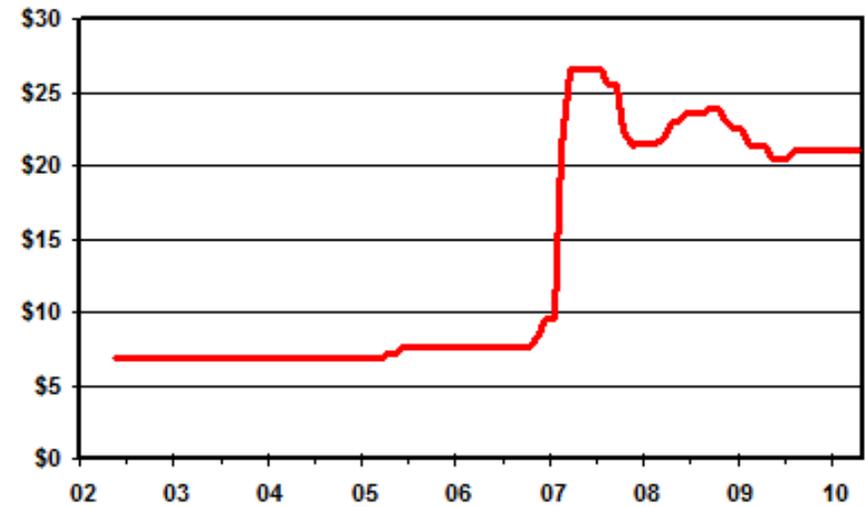
# IAMGOLD Corporation

5/7/2007 TO 5/6/2010



## Monthly Average Prices US \$/lb

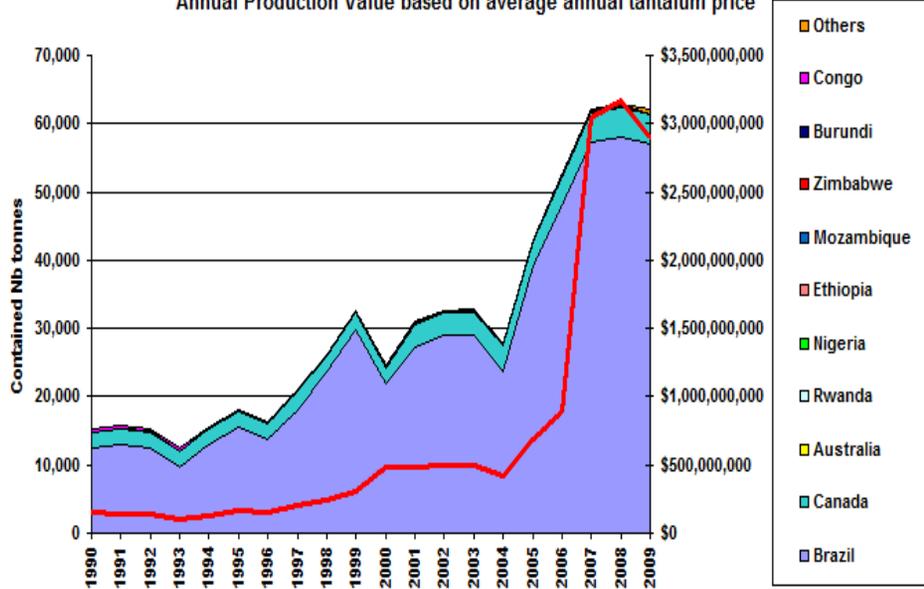
— Niobium Ferro



## Annual Niobium Production

Production Data Source: USGS

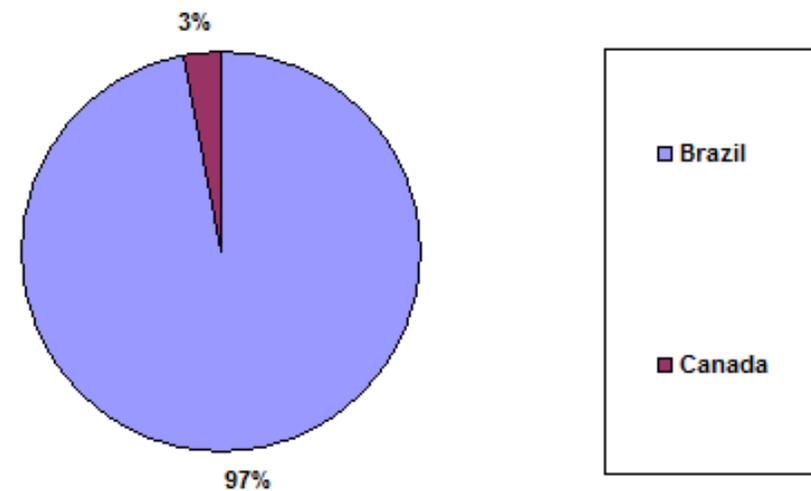
Annual Production Value based on average annual tantalum price



## Global Niobium Resource

2009 Total: 13 billion lbs

\$286 billion at \$22 / lb

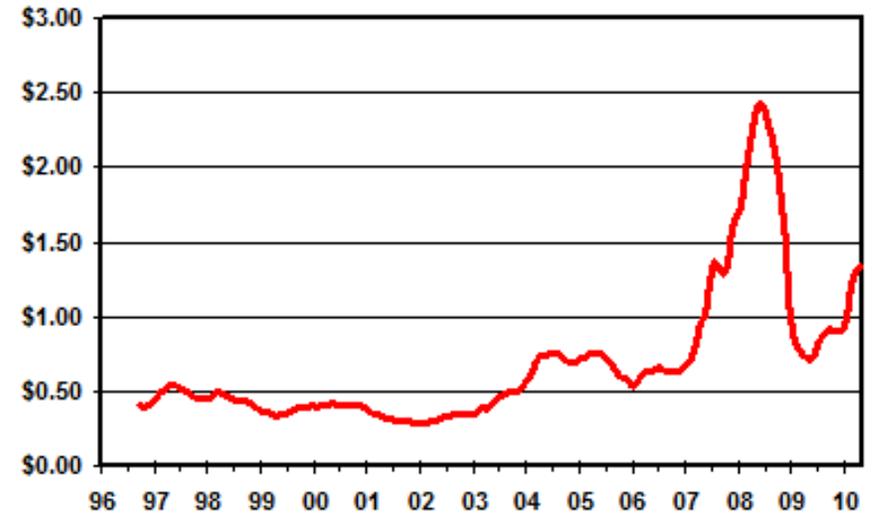


Source: USGS 2010

- Global reserve base “sufficient to meet conceivable demand for centuries” (USGS)
- China lacks chromite resource
- US has 54% import reliance, rest comes from recycling
- No substitute for chromium in stainless steel production
- South Africa wants to restrict chromite ore export, dominant producer of ferro chrome, energy problems

Monthly Average Prices  
US \$/lb

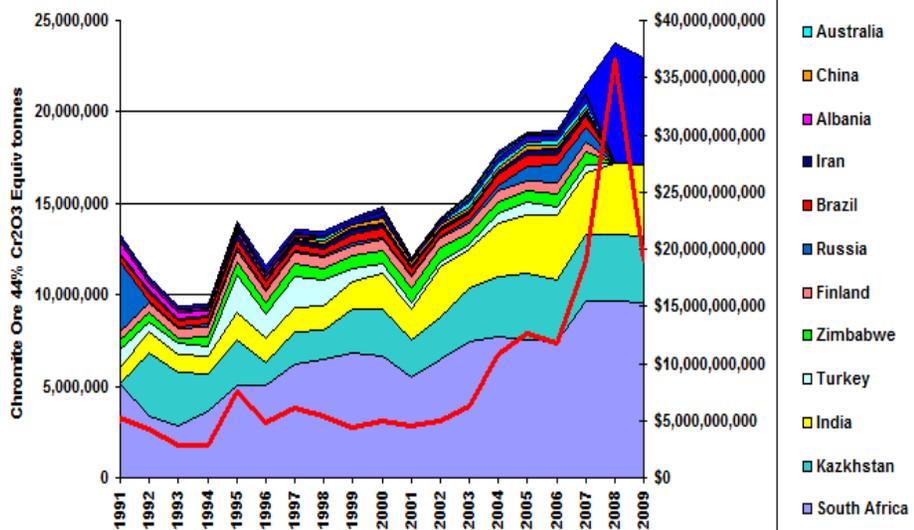
— Chrome Ferro 60-65%



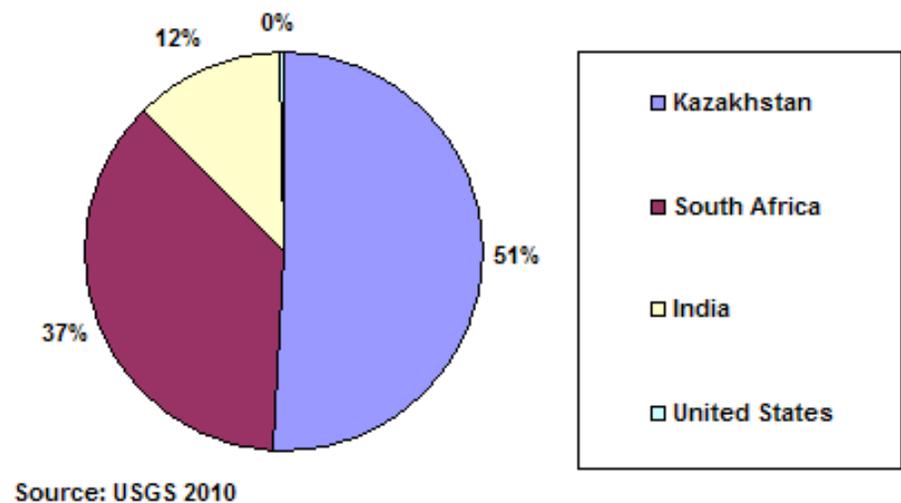
Annual Chromium Production

Production Data Source: USGS

Annual Production Value based on average annual chromium price



Global Chromite Resource  
2009 Total: 355 million t  
\$53 billion at \$150 / t Cr<sub>2</sub>O<sub>3</sub> ore



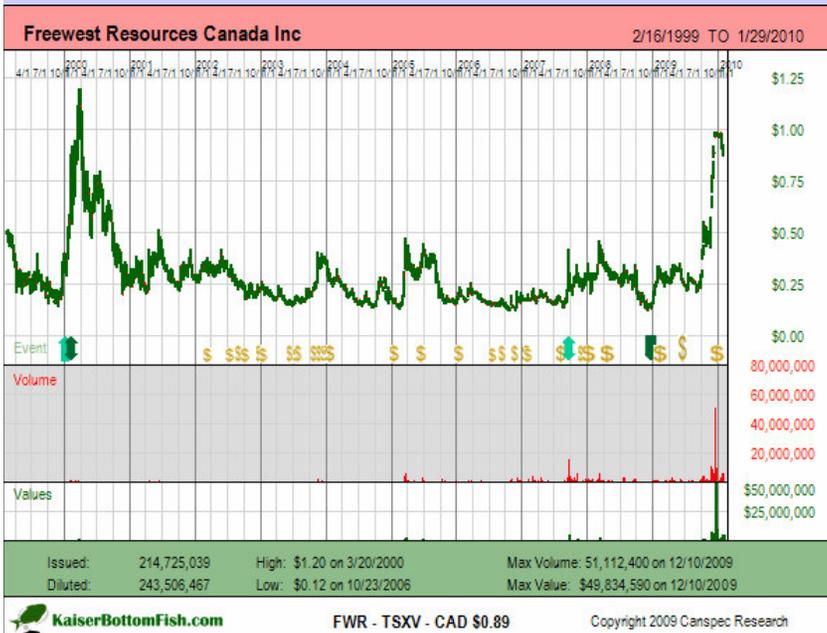
Source: USGS 2010

# Cliffs Natural Resources Inc



- NYSE listed producer of iron ore pellets and coking coal
- 2008 revenues of \$3.6 billion
- Significant NA operations
- Supplies US steelmakers
- Market capitalization of \$5 billion
- Bought Freewest's chromite asset via takeover bid of 0.020106 CLF share for 1 FWR share

# Freewest Resources Canada Inc

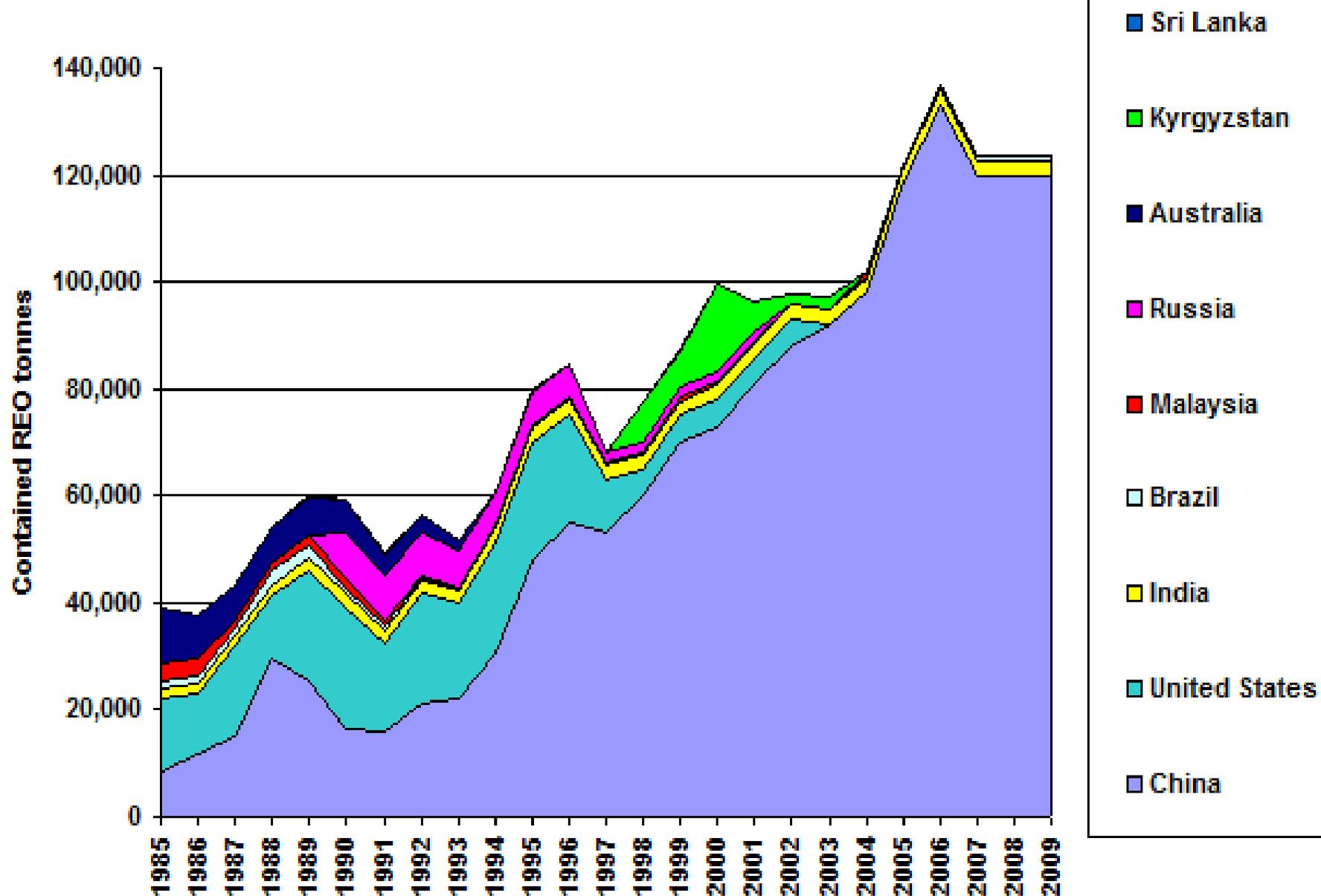


- TSXV listed resource exploration junior, 244 M FD, closed at \$0.89 on Jan 28, 2010
- Buyout value \$217 million on closing, \$369 million at US \$75/sh CLF today
- Owns 100% of Black Thor chromite discovery and 40% of Big Daddy in northern Ontario
- 122 million tonne open-pittable footprint, grade range 27.8%, below South African standard of 40%+
- Estimated \$1.5 billion capital cost



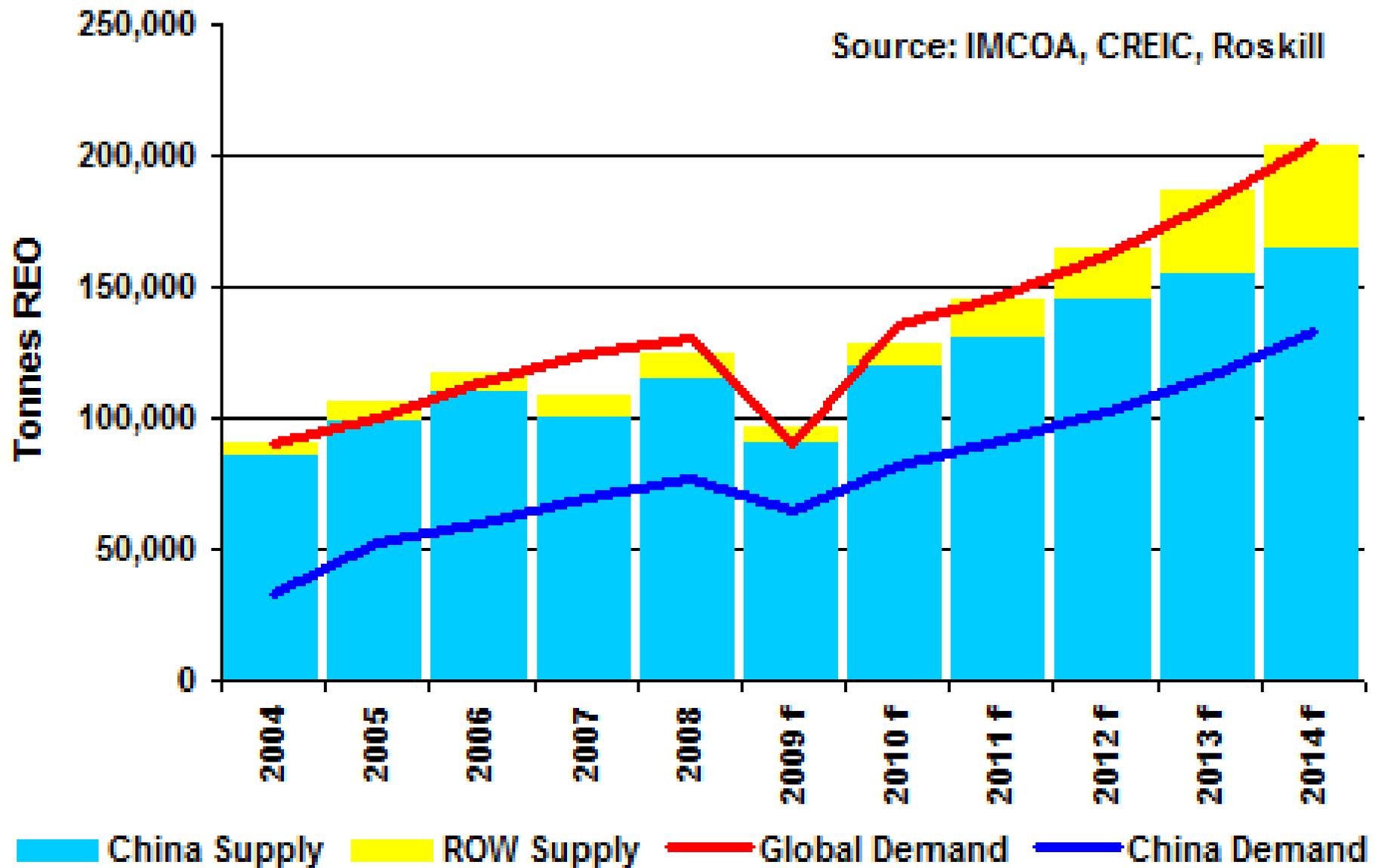
# Annual Rare Earth Oxide Production

Production Data Source: USGS

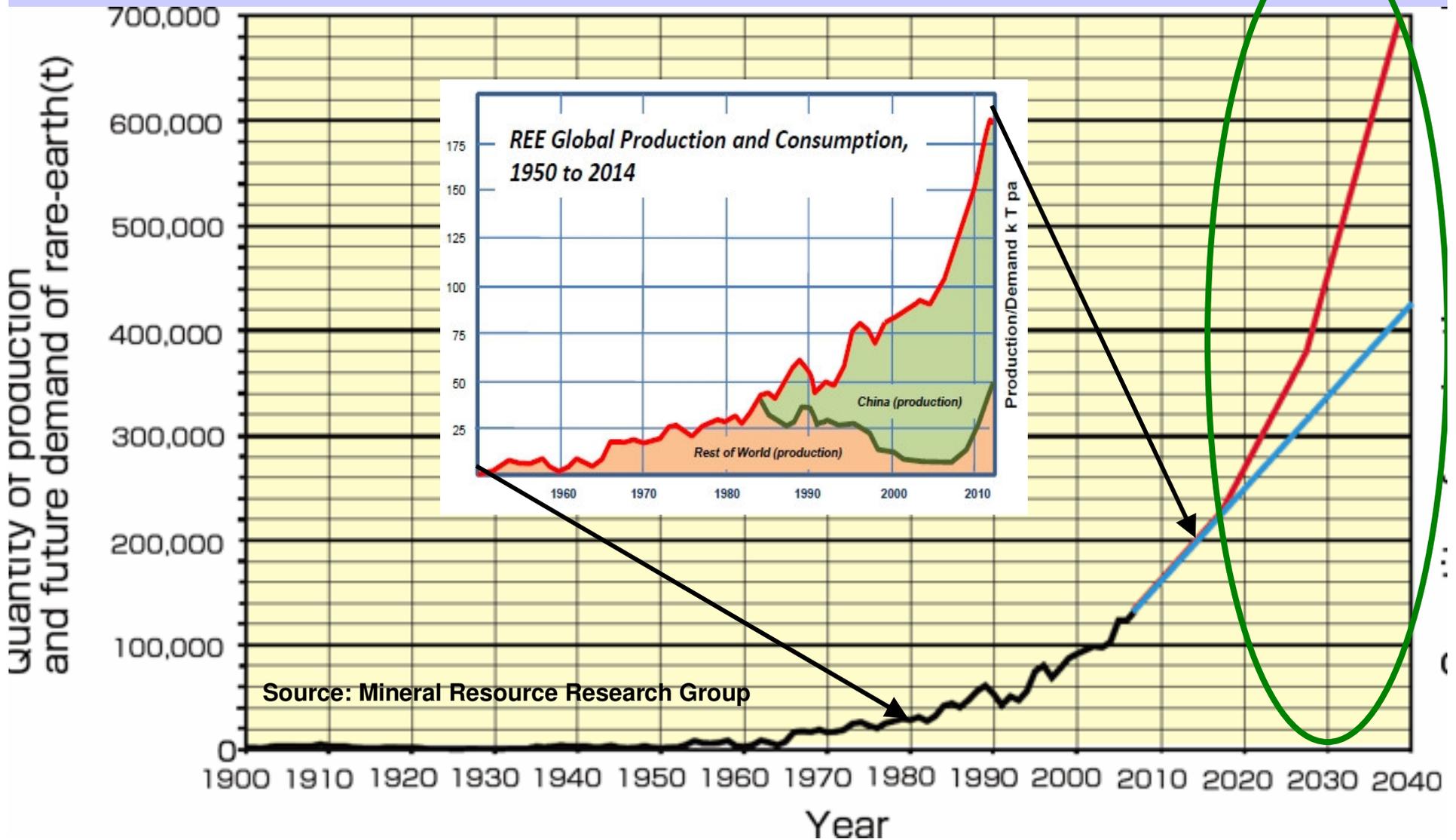


# Rare Earths Supply & Demand 2004-2014

Source: IMCOA, CREIC, Roskill

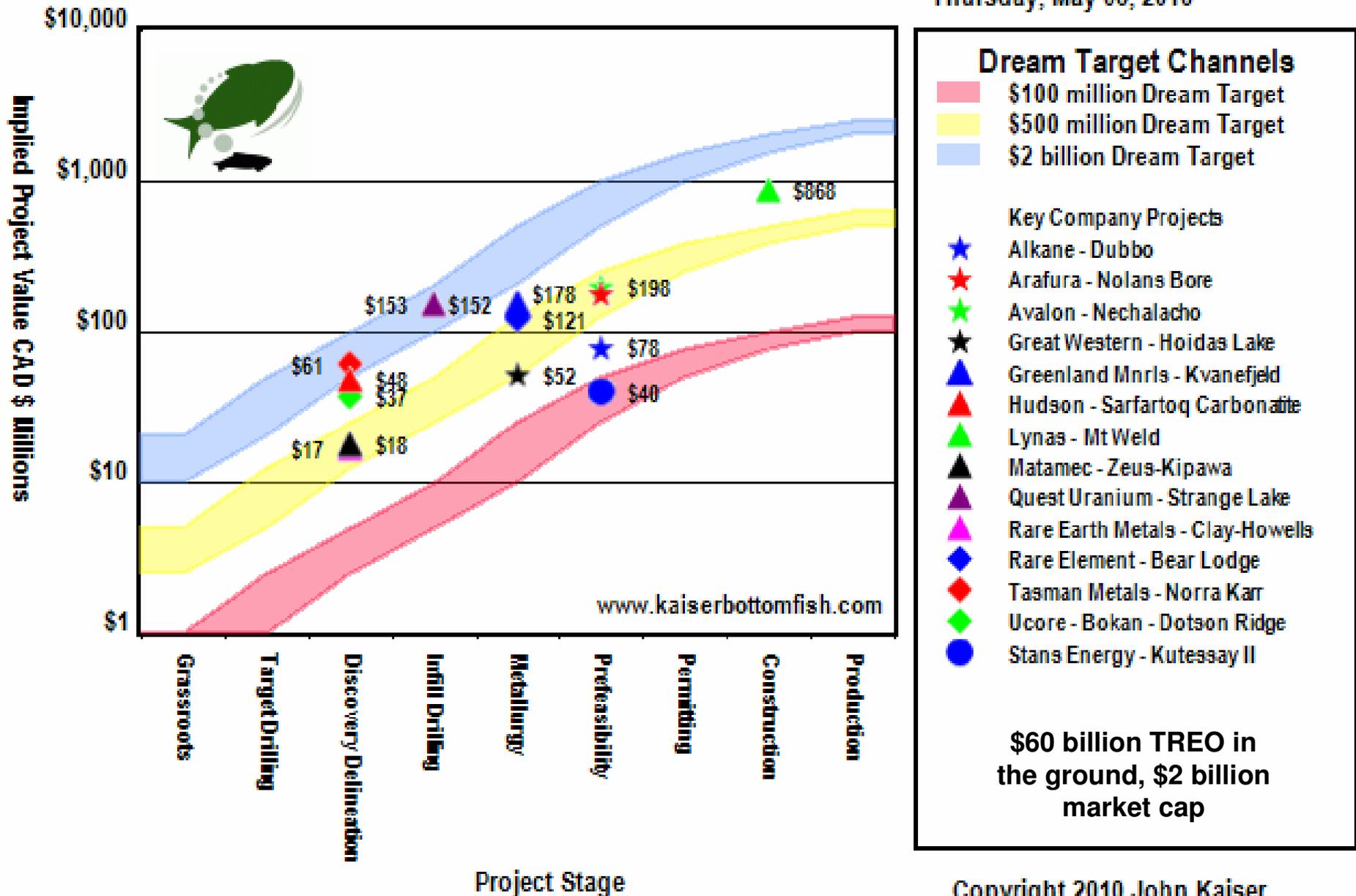


**It's not the rare earth demand growth in the next 5 years that is the critical issue today, but the demand growth 5 years and beyond when clean tech really scales up.**



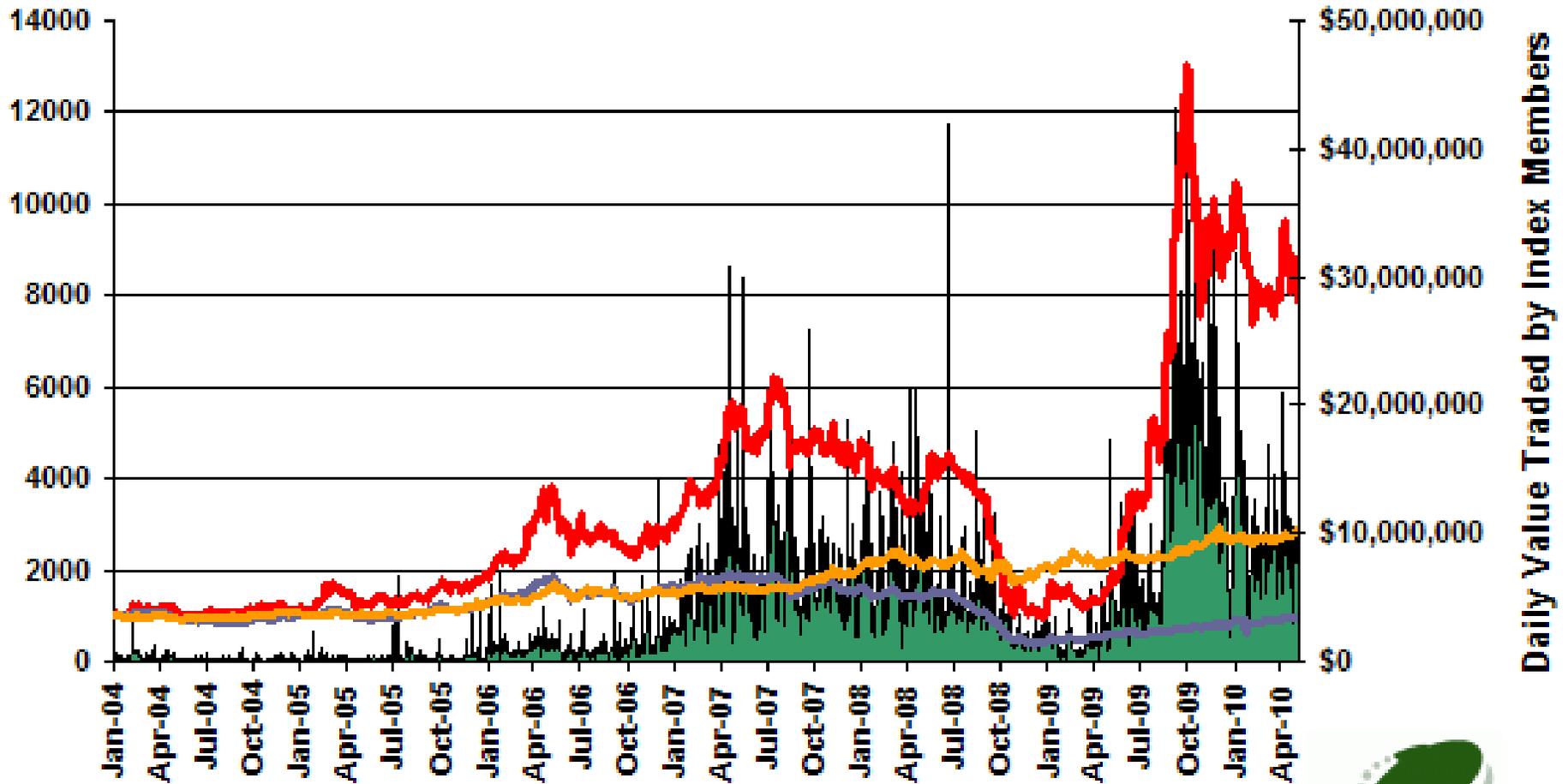
# Rare Earth Index Project Valuations

Thursday, May 06, 2010



# KBFO Rare Earth Index

May 6, 2010



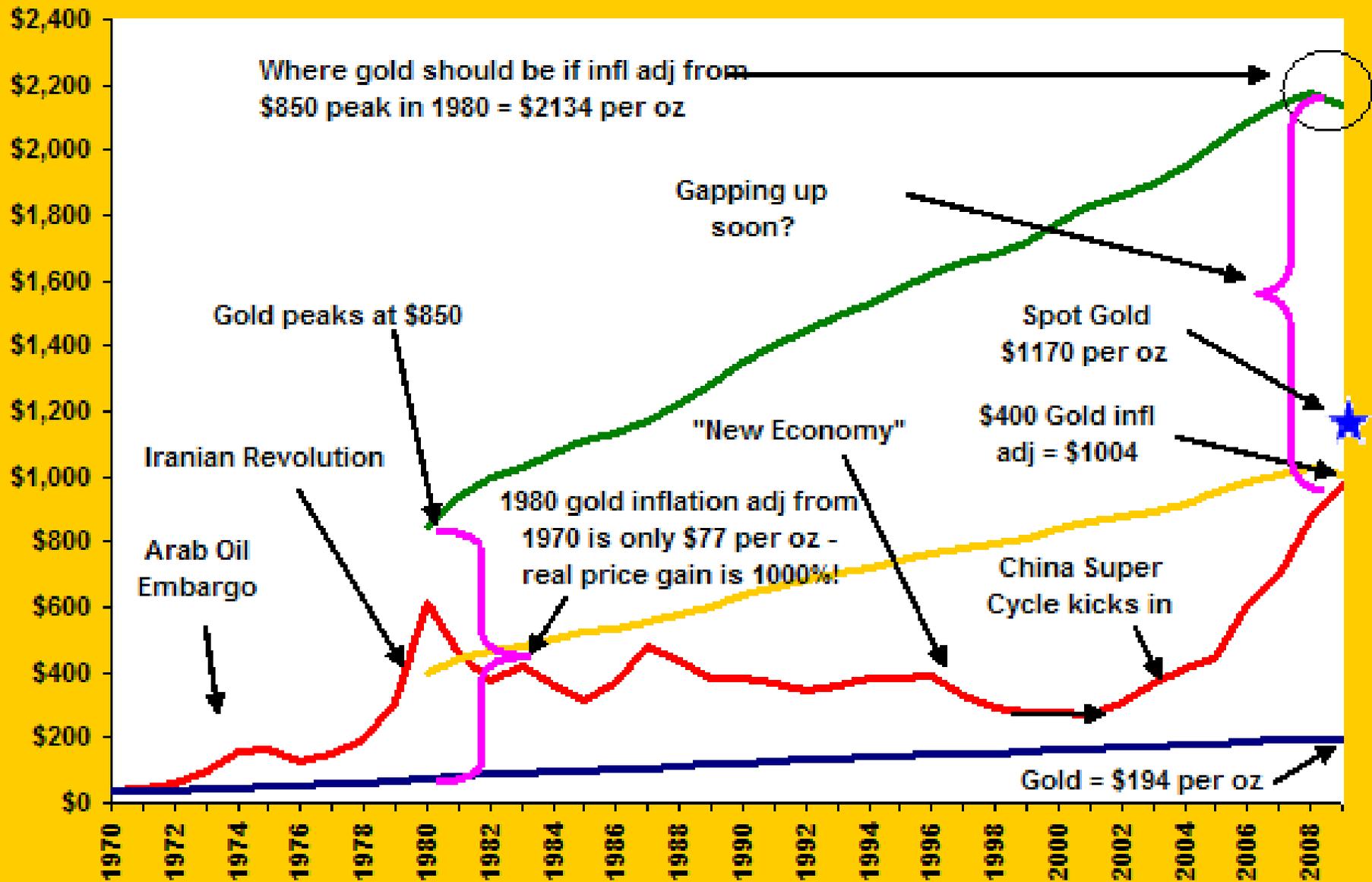
- Daily Value Traded by Index Members
- Gold \$415.20/oz normalized to 1000 on Jan 2, 2004
- TSXV Index Normalized to 1000 on Jan 2, 2004
- Rare Earth Index - 1000 on Jan 2, 2004



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Canspec Research LLC

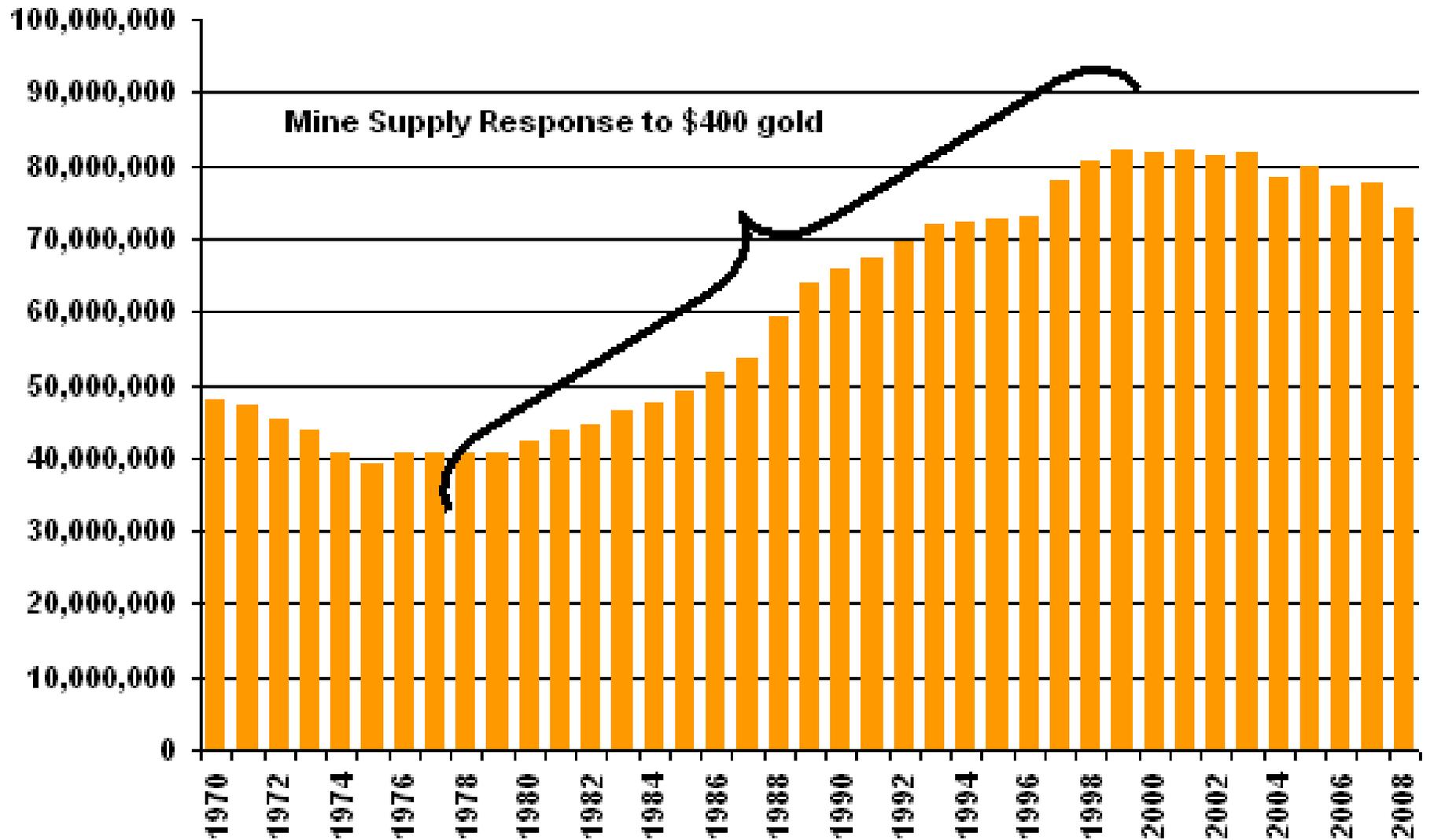
# Gold in Perspective

- Actual Average Annual Gold Price
- 1970 Base \$36 per oz inflation adjusted
- 1980 Base \$850 per oz inflation adjusted
- 1980 Base \$400 per oz inflation adjusted



# Annual New Mine Supply - Gold Ounces

(1.9 billion ounces added to 3.2 billion stock since 1980)



## **2 Types of Resource Sector Story Speculation Cycles**

### **Commodity Speculation**

- **Resource Estimates - Ounces & Pounds in the Ground**
- **Focused on development portion of exploration cycle: infill drilling, metallurgy, prefeasibility, feasibility/permitting, construction**
- **Vulnerable to geopolitical risk and commodity price volatility**
- **Valuation based on DCF Method & Peer Group Comparison**
- **Financing Intensive – a more institutional and less retail audience**
- **1976-1981 (oil, gold, copper), 2003-2008 (base metals), 2009+ (gold?)**

### **Discovery Speculation**

- **No Resource Estimates – just geology & location**
- **Focused on early discovery part of exploration cycle: grassroots, target generation & drilling, discovery delineation**
- **Speculation focused on grade and tonnage, repeatability by area player or conceptually similar plays, commodity price irrelevant**
- **Valuation based on Rational Speculation Model**
- **Financing comes from sophisticated investor & retail audiences**
- **1982-2002 (Hemlo, Eskay Creek, Ekati, Voisey's Bay, Busang, Veladero), 2003-2008 (Fruta del Norte)**

# Approach #1: Develop existing ounces in the ground that a higher gold price is putting into the money.

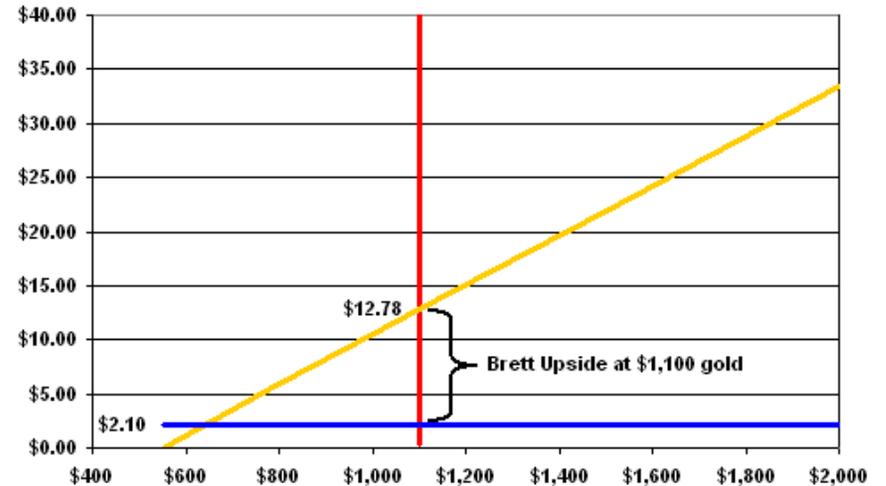
## Project Resource Estimate - Hammond Reef

Jul 23, 2009	NI 43-101	David W. Rennie, Scott Wilson RPA		Cutoff: 0.30 g/t Au			
Resource Category	Tonnage	Total Rock Value	Metal	Grade	Recovery	Contained Metal	% of GMV
Inferred Mineral Resources	259,400,000	\$28/t	Gold	0.8 g/t	100.0%	6,672,025 oz	100%
All Categories Spot	259,400,000	\$28/t	Gold	0.80 g/t		6,672,025 oz	100%
All Categories LTA	259,400,000	\$21/t	Gold	0.80 g/t		6,672,025 oz	100%
Spot Gross Metal Value		Market Cap as % of Net GMV		Spot Prices Used			
\$7,365,915,828		1.9%		Gold \$1,104.00/oz			
LTA Gross Metal Value		Market Cap as % of Net GMV		LTA Prices Used			
\$5,461,719,834		2.6%		3 Year Average: Gold \$818.60/oz			

Mine Parameters	Cost Parameters		Other Parameters		
Mining Method	Open-Pit	Capital Cost	\$614,000,000	Company	Brett
Processing Method	Milling	Mining Cost	\$1.40	Fully Diluted	115,000,000
Tonnage	243,440,000	Processing Cost	\$4.45	Net Interest	100%
Mining Rate	50,000	Marketing Cost	0%	CapEx Funding	100% Equity
Operating Days	350	Transportation Cost	\$0.00	Years to Startup	1
Annual Ore Mined	17,500,000	Smelting Cost	\$0.00	CDN/US \$ Exchange	1.05
Mine Life	14	G&A Cost	\$0.73	Discount Rate	5%
Waste to Ore Strip	1.43	Total Operating Cost	\$8.58	Tax Rate	35%
Concentrate	0%	Reclamation Cost	\$0.00	Net Smelter Royalty	0.00%
Scenarios	Breakeven	Pessimistic	Base	Optimistic	Fantasy
Gold Price (\$/oz)	\$538	\$800	\$1,000	\$1,500	\$2,000
Rock Value (Recoverable)	\$12.86	\$19.14	\$23.92	\$35.88	\$47.84
Life of Mine Revenue	\$3,129,976,401	\$4,658,569,527	\$5,823,211,909	\$8,734,817,863	\$11,646,423,818
Pre-Tax 0% NPV Cash Flow	\$350,358,505	\$1,878,951,631	\$3,043,594,013	\$5,955,199,967	\$8,866,805,922
After-Tax 0% NPV Cash Flow	\$227,733,028	\$1,221,318,560	\$1,978,336,108	\$3,870,879,979	\$5,763,423,849
Pre-Tax NPV	\$65,803,606	\$1,097,007,211	\$1,882,686,149	\$3,846,883,493	\$5,811,080,837
After-Tax NPV	\$222,643	\$692,008,963	\$1,207,423,846	\$2,488,585,161	\$3,767,456,512
After-Tax US \$/sh NPV	\$0.00	\$6.99	\$12.20	\$25.15	\$38.07
After-Tax Cdn \$/sh NPV	\$0.00	\$7.34	\$12.81	\$26.41	\$39.98
IRR	4.4%	22.8%	34.7%	62.1%	88.6%

## Brett Hammond Reef After Tax NPV Sensitivity

- Current Gold Price - \$1,100
- Share Price vs Gold Price
- Current Stock Price - \$2.10
- 5% Discount Rate
- 117 M fully diluted
- 2009 PEA Parameters



## Brett Resources Inc

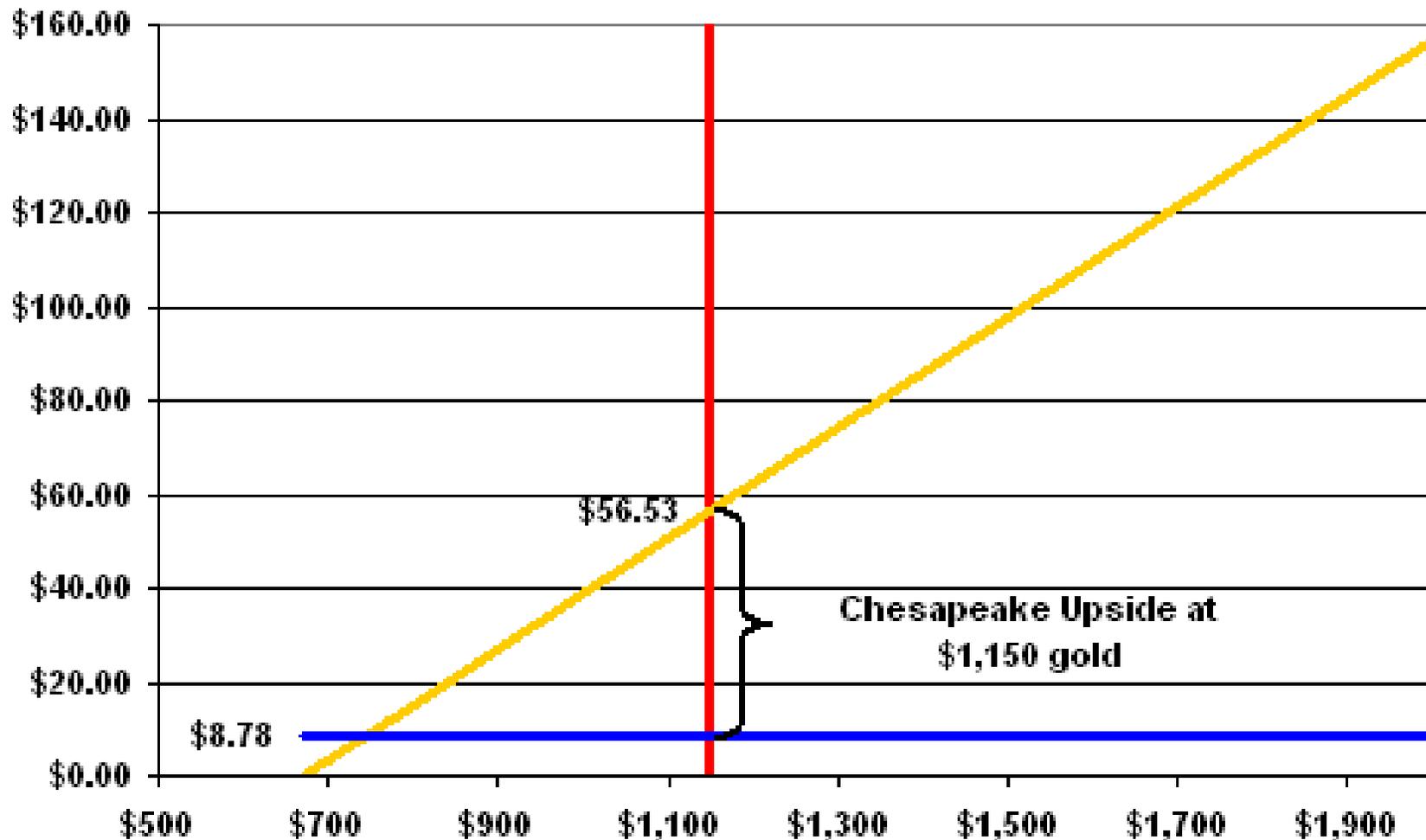
5/7/2007 TO 5/6/2010



# Chesapeake Metals After Tax NPV Sensitivity

- Current Gold Price - \$1,150
- Share Price vs Gold Price
- Current Stock Price - \$8.78

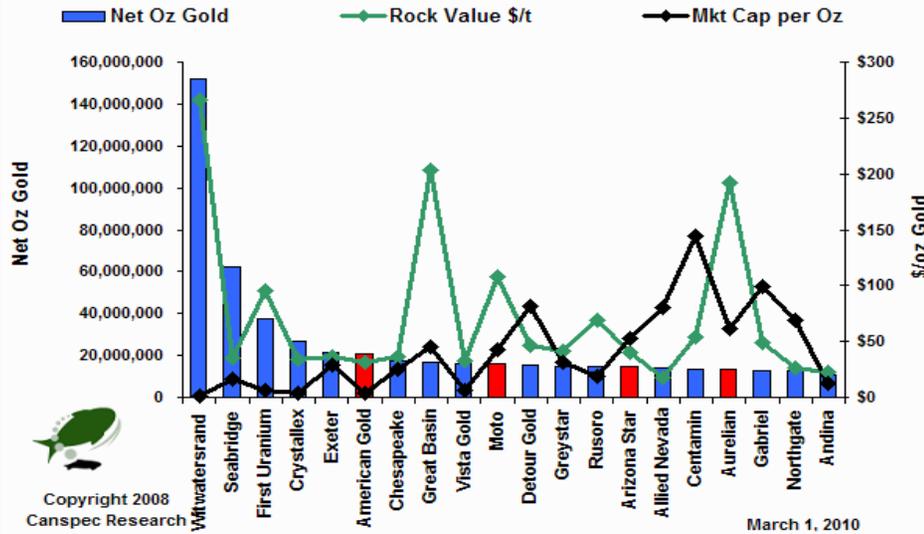
5% Discount Rate  
45.2 M fully diluted  
2010 PEA Parameters



# 450 million oz in the ground valued at \$22 billion

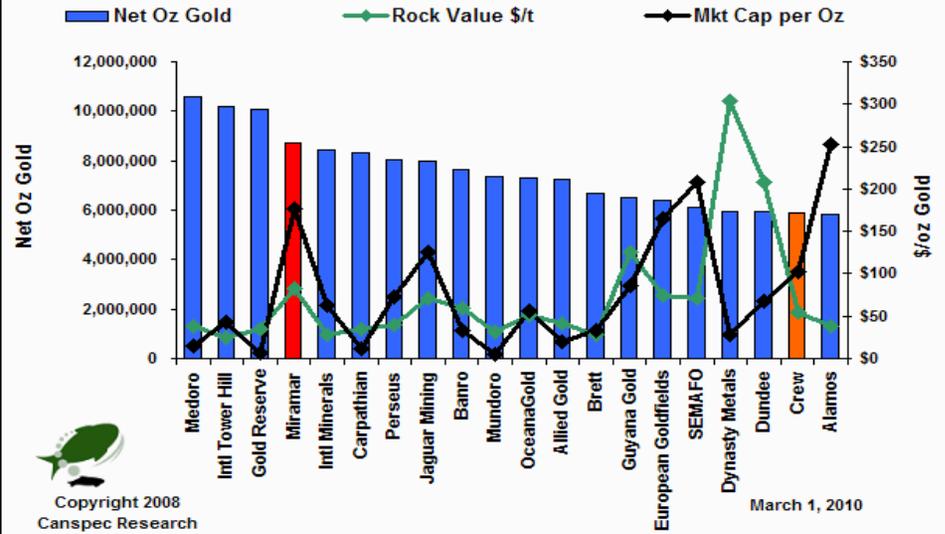
### Primary Gold Companies - Top 20 by Ounces

(Red - Companies taken over or merged, Orange - takeover pending)



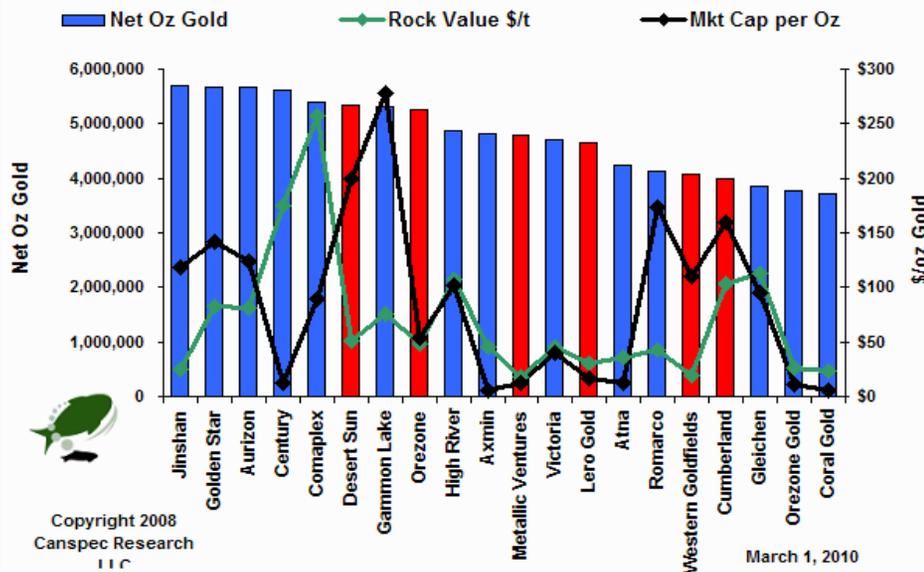
### Primary Gold Companies - Top 21-40 by Ounces

(Red - Companies taken over or merged, Orange - takeover pending)



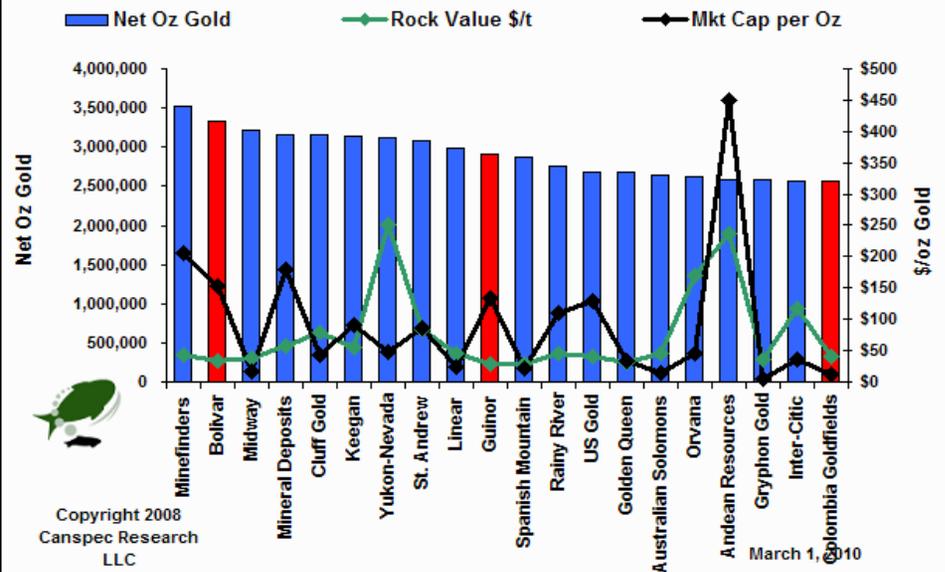
### Primary Gold Companies - Top 41-60 by Ounces

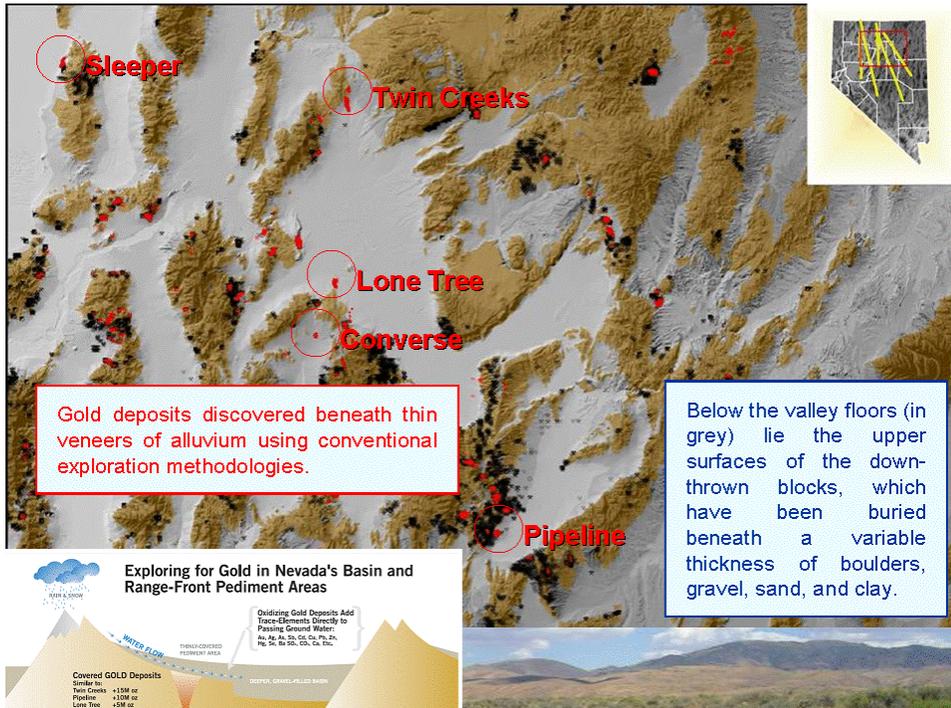
(Red - Companies taken over or merged, Orange - takeover pending)



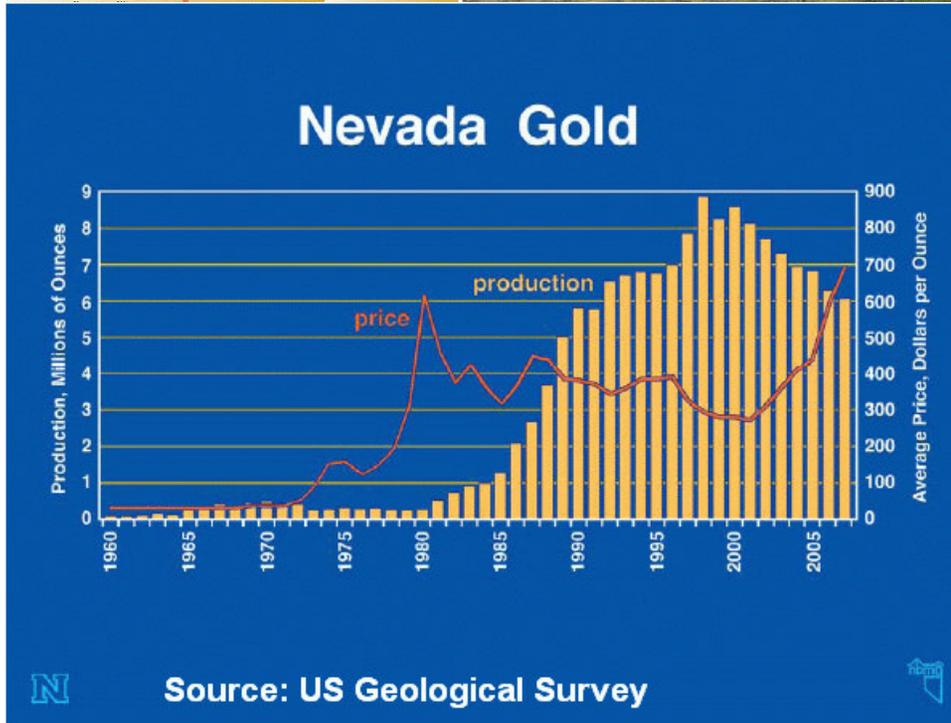
### Primary Gold Companies - Top 61-80 by Ounces

(Red - Companies taken over or merged, Orange - takeover pending)

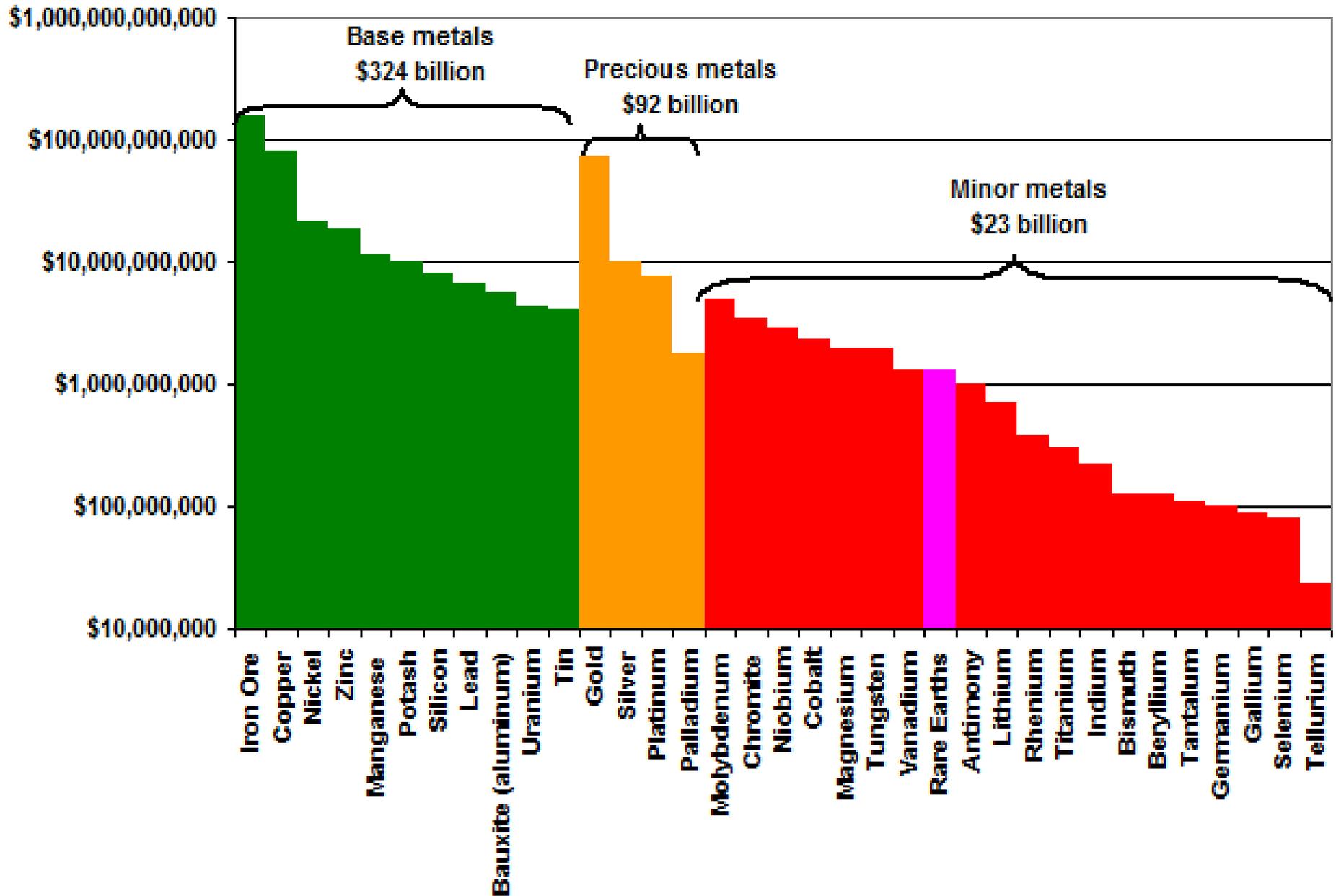




**Approach #2: Explore for new deposits using innovative exploration methods or creative geological sleuthing.**



**2009 Global Production Value**  
 (Based on average annual price & USGS production estimates)



# Gold Matters because it does not Matter



20 m

Thank You  
[www.KaiserBottomfish.com](http://www.KaiserBottomfish.com)