Sprott-Stansberry Vancouver Natural Resource Symposium

Vancouver, Canada

July 30, 2015

Presented by John Kaiser

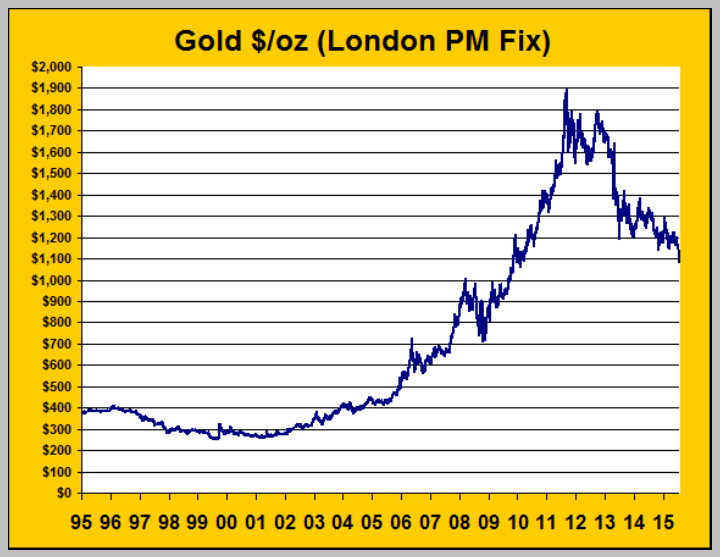
Security of Supply Concepts and Resource Junior Speculation

www.KaiserResearch.com

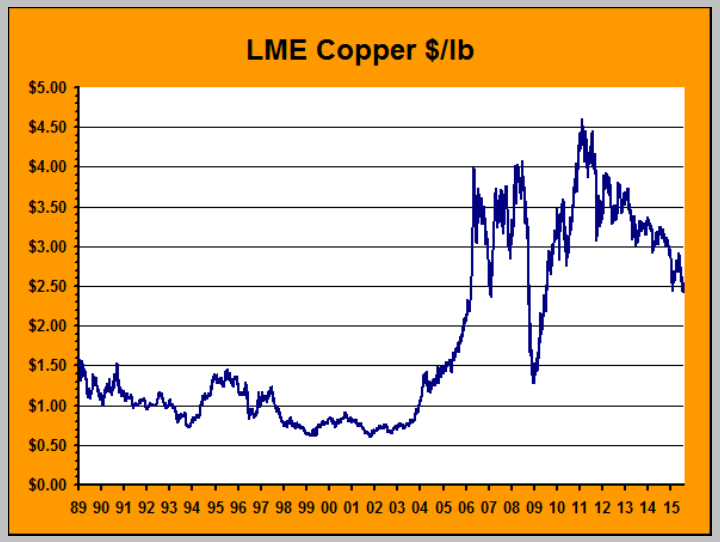
The Four Core Resource Sector Narratives

Discovery Exploration

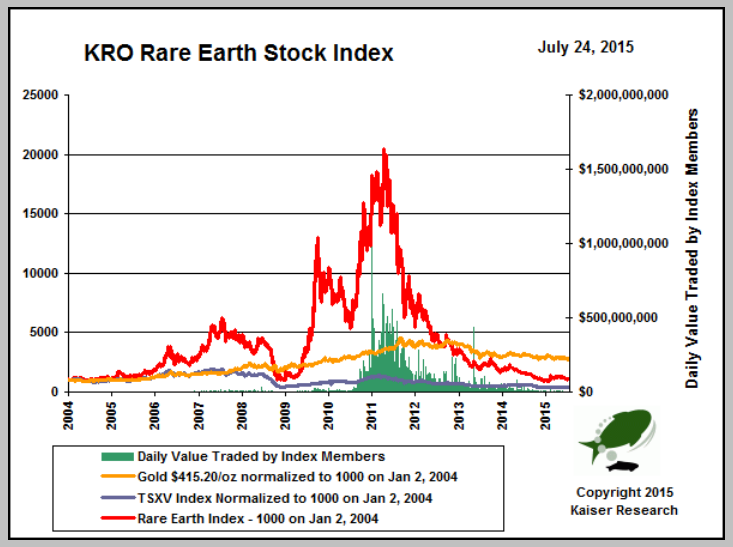
Gold Bug



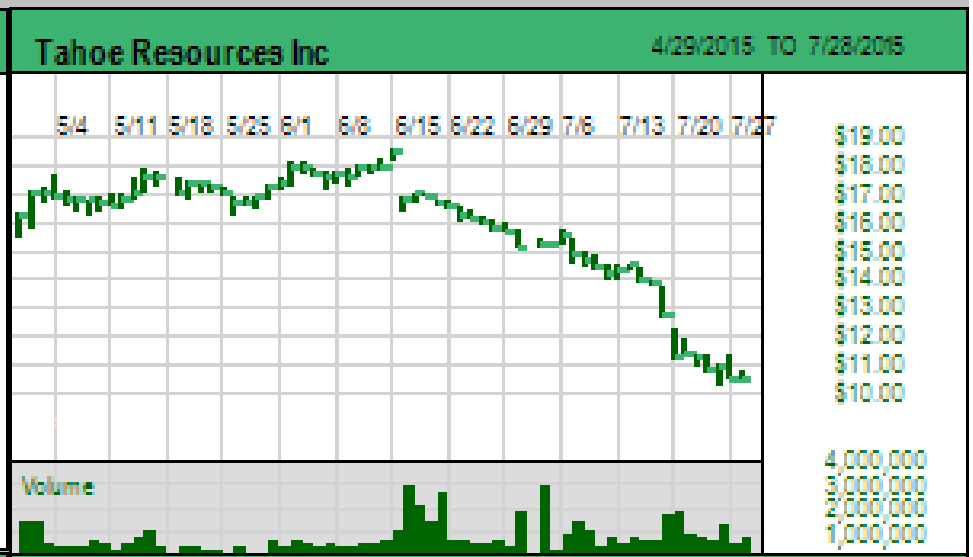
Commodity Cycle



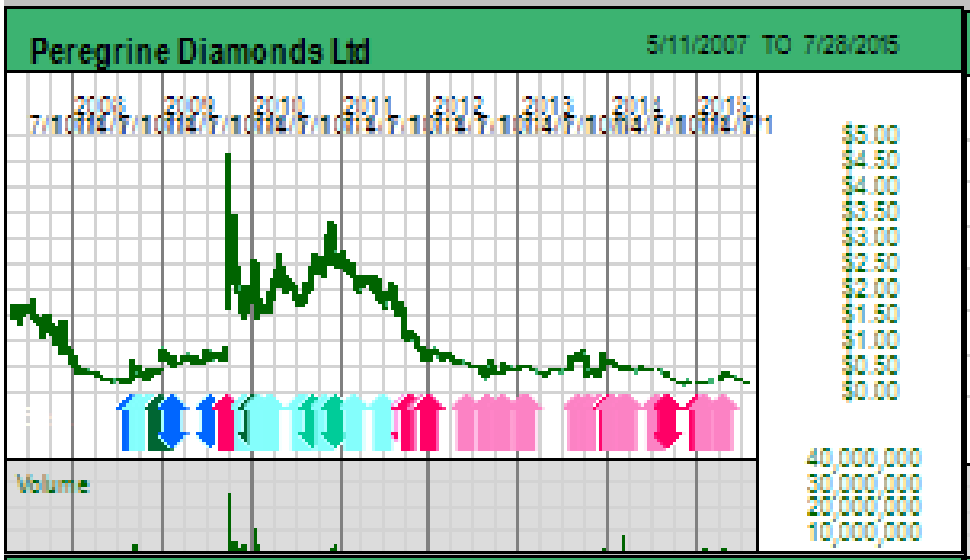
Security of Supply

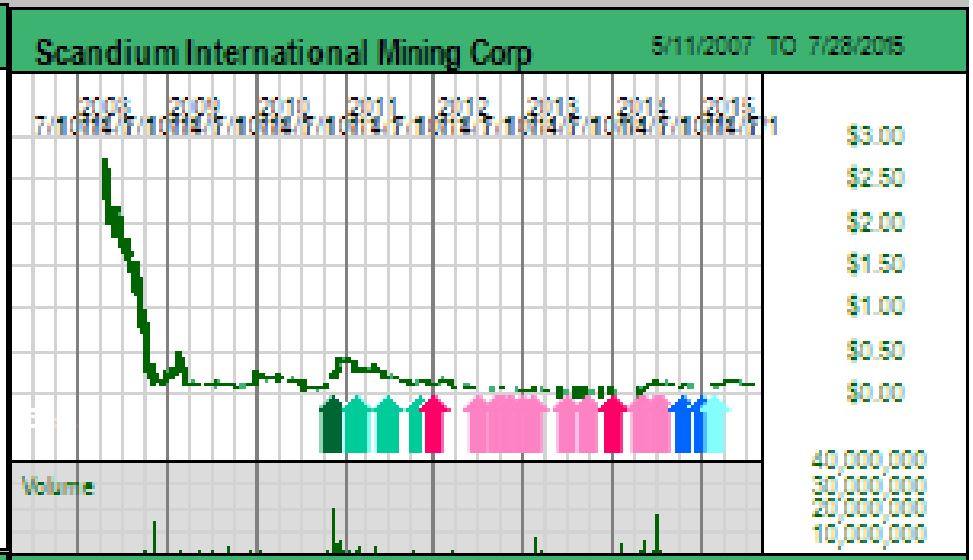


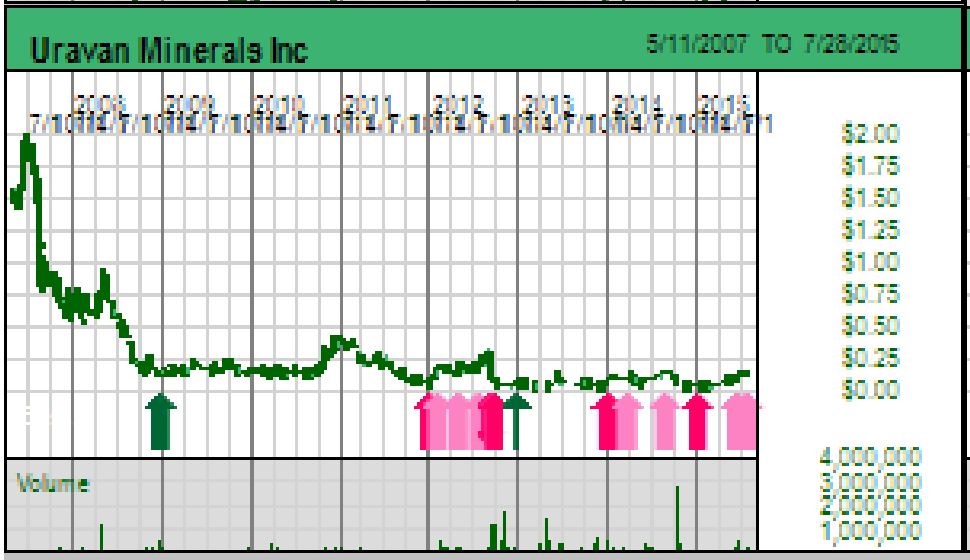
Financial Sector Favorites

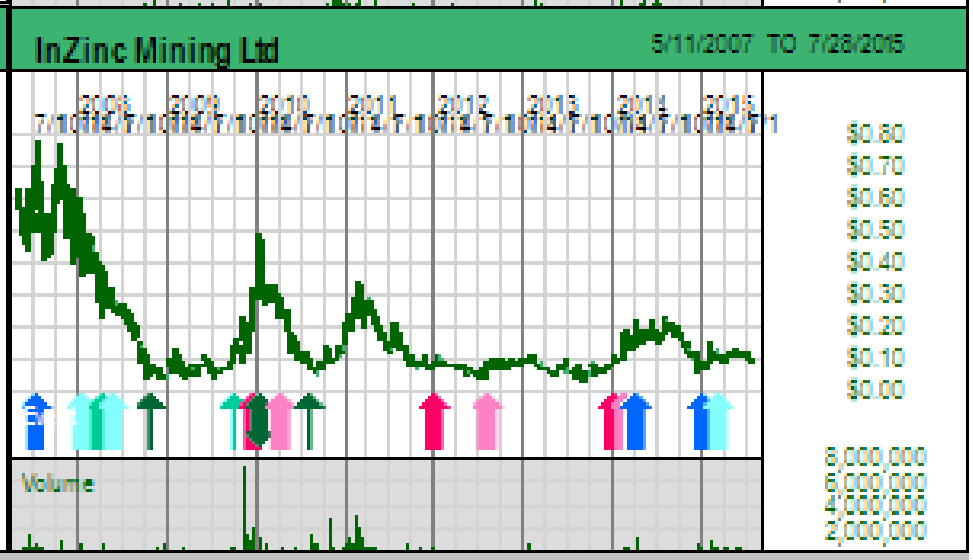


Financial Sector Orphans

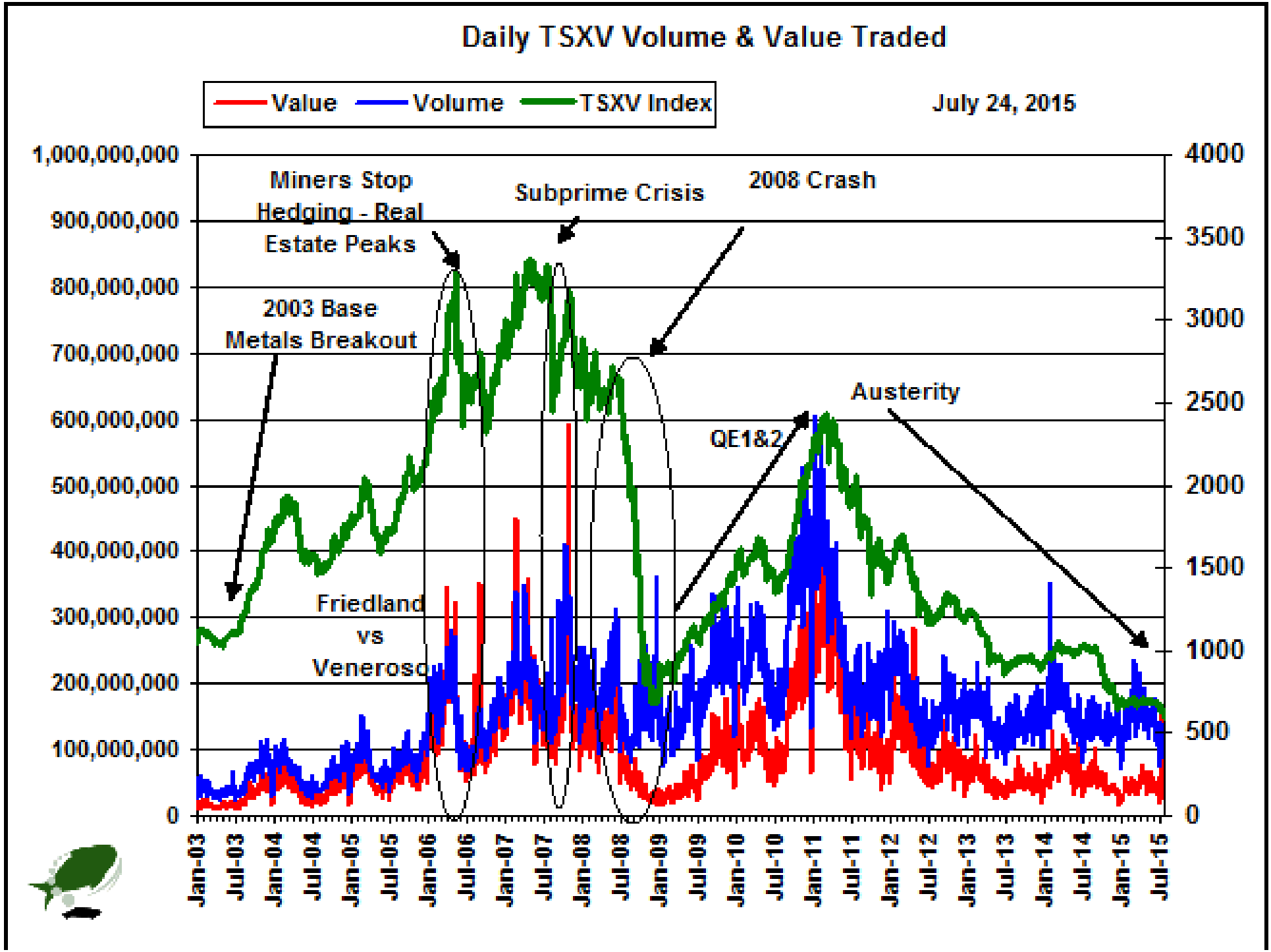








Kaiser Favorites


Daily TSXV Volume & Value Traded
Value
Volume
TSXV Index
July 24, 2015
Miners Stop Hedging - Real Estate Peaks
Subprime Crisis
2008 Crash
2003 Base Metals Breakout
Austerity
QE1&2
Friedland vs Veneroso
1,000,000,000
900,000,000
800,000,000
700,000,000
600,000,000
500,000,000
400,000,000
300,000,000
200,000,000
100,000,000
0
4000
3500
3000
2500
2000
1500
1000
500
0
Jan-03
Jul-03
Jan-04
Jul-04
Jan-05
Jul-05
Jan-06
Jul-06
Jan-07
Jul-07
Jan-08
Jul-08
Jan-09
Jul-09
Jan-10
Jul-10
Jan-11
Jul-11
Jan-12
Jul-12
Jan-13
Jul-13
Jan-14
Jul-14
Jan-15
Jul-15

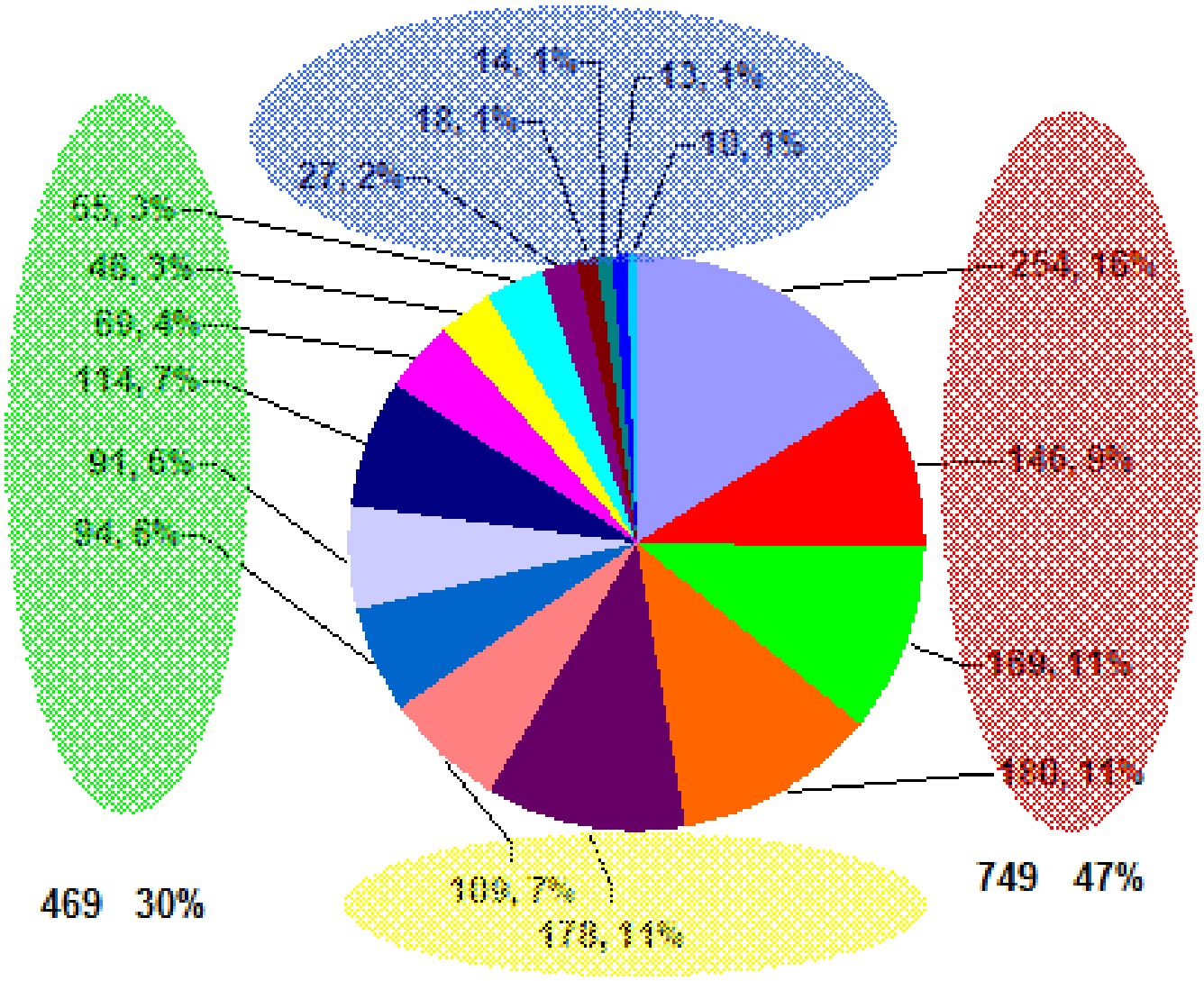
Working Capital Range Breakdown

$43,848,444,020

1,587

Active KRO Companies

(# cos, % of Total Cos)



- <($1,000,000)
- ($1,000,000 - $500,000)
- ($500,000 - $200,000)
- ($200,000 - $0)
- $0 - $200,000
- $200,000 - $500,000
- $500,000 - $1,000,000
- $1,000,000 - $2,000,000
- $2,000,000 - $5,000,000
- $5,000,000 - $10,000,000
- $10,000,000 - $20,000,000
- $20,000,000 - $50,000,000
- $50 - $100 million
- $100 - $200 million
- $200 - $500 million
- $500 - $1,000 million
- >$1 billion

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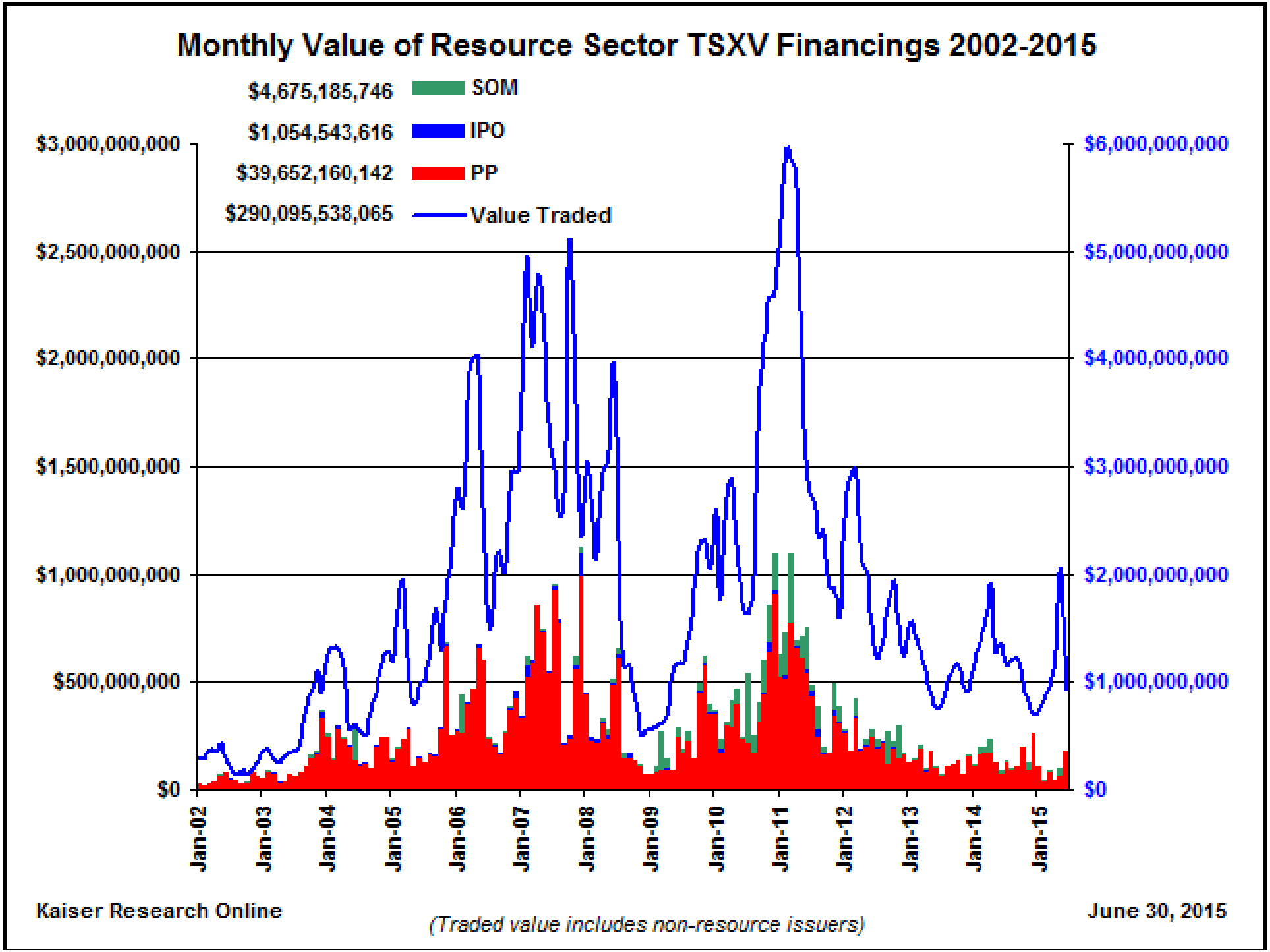
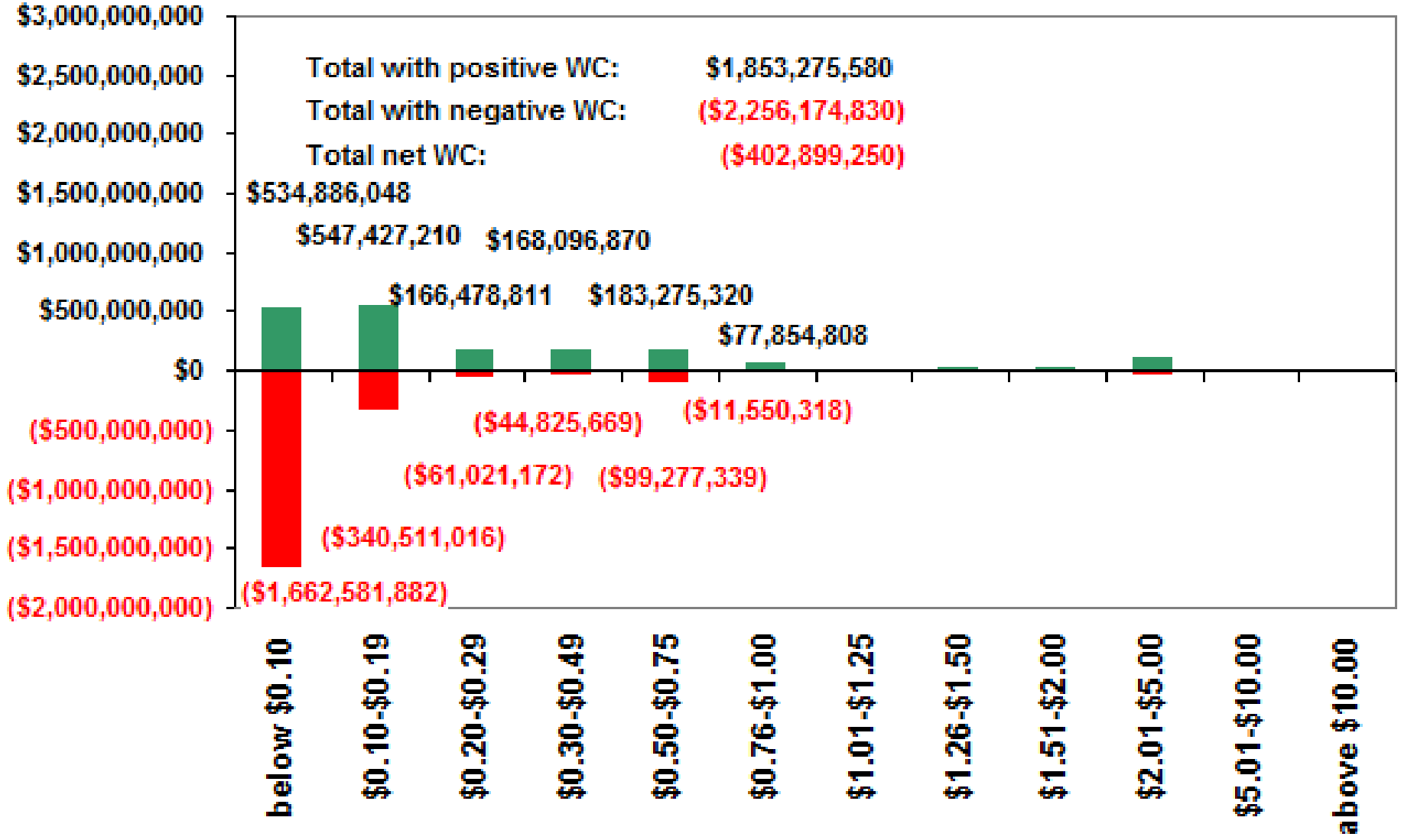
July 23, 2015


Monthly Value of Resource Sector TSXV Financings 2002-2015
$4,675,185,746
SOM
$1,054,543,616
IPO
$39,652,160,142
PP
$290,095,538,065
Value Traded
$3,000,000,000
$2,500,000,000
$2,000,000,000
$1,500,000,000
$1,000,000,000
$500,000,000
$0
$6,000,000,000
$5,000,000,000
$4,000,000,000
$3,000,000,000
$2,000,000,000
$1,000,000,000
$0
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Kaiser Research Online
(Traded value includes non-resource issuers)
June 30, 2015

1,275 TSXV KRO Working Capital

(Positive & Negative Working Capital tabulated separately)



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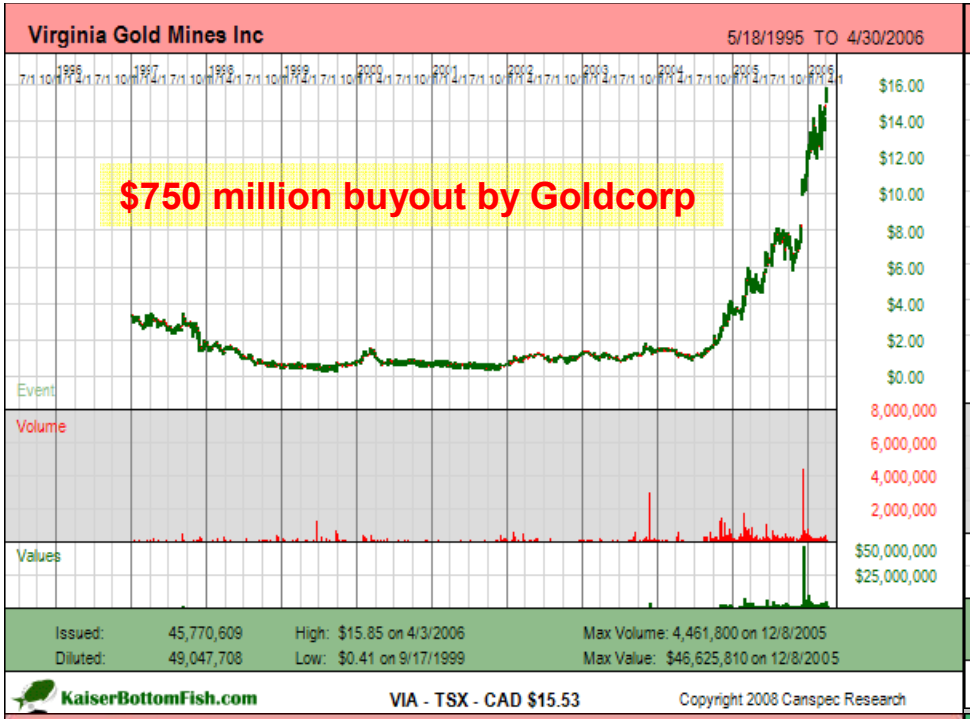
Discovery Exploration Narrative

- Prospect-Generator Farmout Model – difficult due to exploration cutbacks for majors, inability of life-style juniors to raise capital, and savage terms that leave juniors with as little as 15% net and weak news timelines
- Risk adverse climate dominated by insistence on full warrants and a clip and flip mentality that leaves juniors with unproductive warrant overhangs
- Focus needs to be on juniors with a geological visionary supported by a strong technical team backed by capital
- Companies must have a majority owned flagship exploration play that has plausible potential for fundamental success, a true “project of merit”
- Project must be supported by a new geological model, evidence for the presence of a prize with sufficient scale to be worth developing, and/or an innovative exploration method that makes visible brand new targets
- The junior must have the ability to articulate the story that allows retail investors to understand the potential for fundamental success
- Ideally a new discovery will have replication implications that spawns speculative interest in similar exploration plays

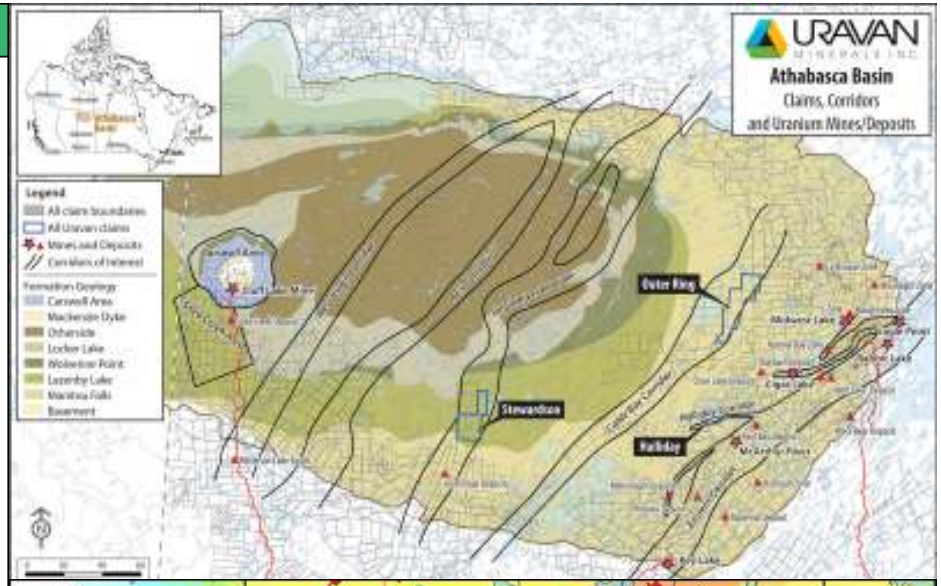

Virginia Gold Mines Inc
5/18/1995 TO 4/30/2006
$750 million buyout by Goldcorp
Event
Volume
Values
Issued: 45,770,609
Diluted: 49,047,708
High: $15.85 on 4/3/2006
Low: $0.41 on 9/17/1999
Max Volume: 4,461,800 on 12/8/2005
Max Value: $46,625,810 on 12/8/2005
KaiserBottomFish.com
VIA - TSX - CAD $15.53
Copyright 2008 Canspec Research

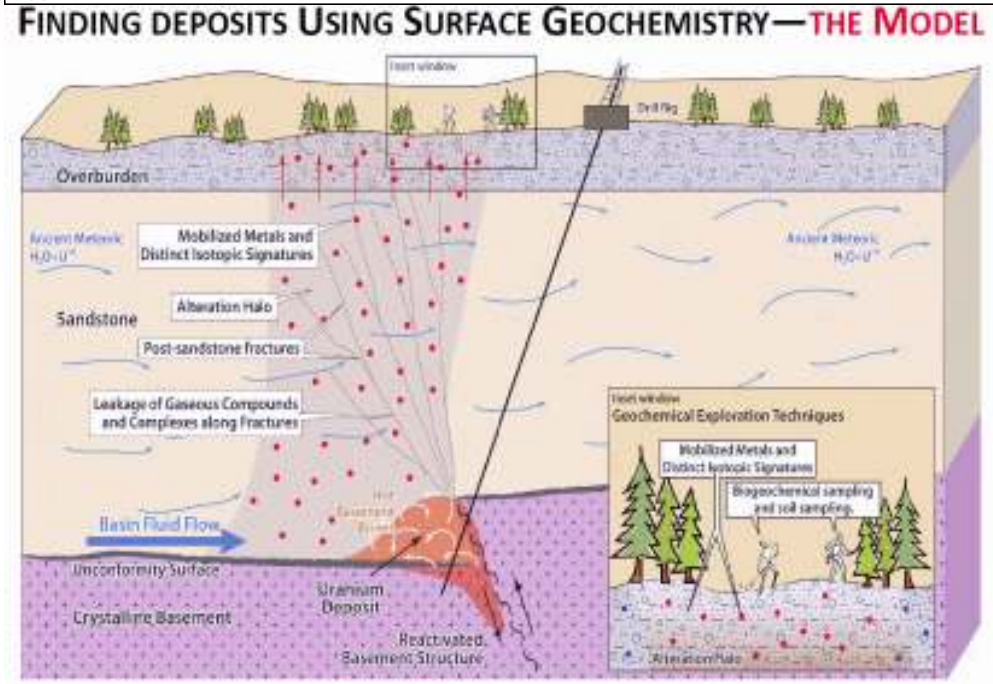
Virginia Mines Inc
7/20/2005 TO 2/18/2015
Event
Volume
Values
Issued: 35,797,363
Diluted: 37,990,363
High: $17.20 on 1/20/2015
Low: $2.25 on 11/20/2008
Max Volume: 2,896,900 on 4/5/2006
Max Value: $19,505,200 on 1/15/2015
KaiserResearch.com
VGQ - TSX - Daily - CAD $14.99
Copyright 2015 Kaiser Research

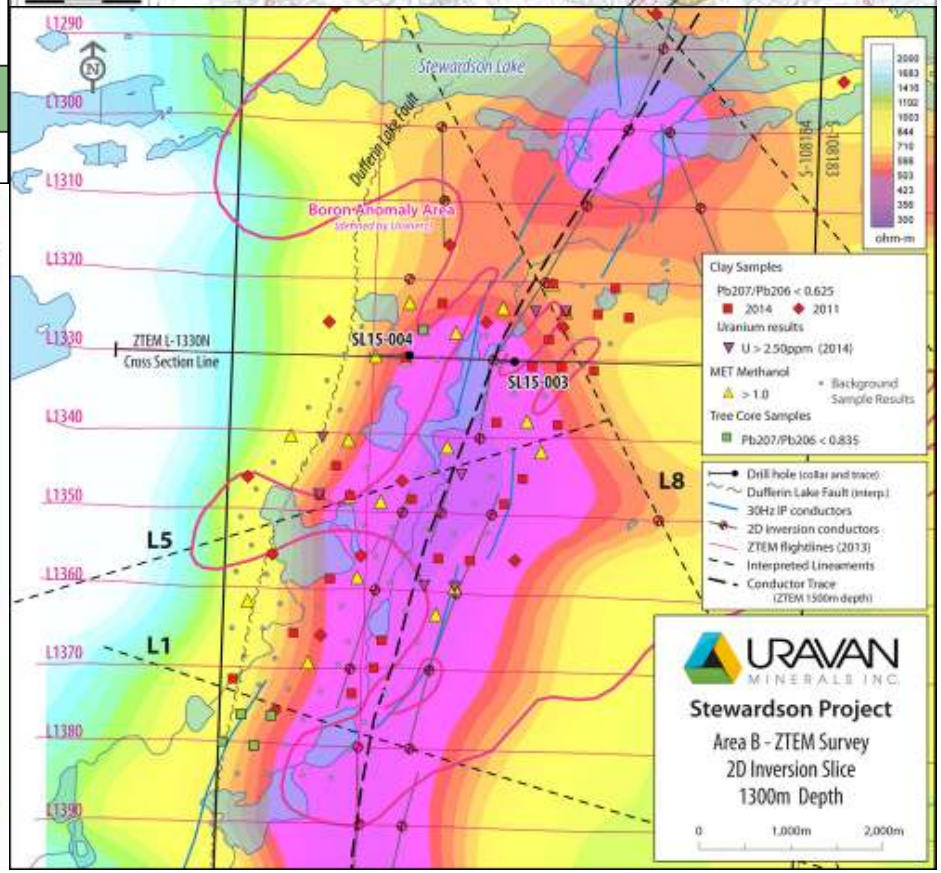
Probe Mines Ltd
10/11/1998 TO 3/16/2015
Event
Volume
Values
Issued: 90,794,727
Diluted: 111,162,227
High: $5.50 on 1/30/2015
Low: $0.01 on 12/11/2001
Max Volume: 8,294,300 on 9/19/2007
Max Value: $18,653,712 on 1/20/2015
KaiserResearch.com
PRB - TSXV - Daily - CAD $4.33
Copyright 2015 Kaiser Research

Probe Metals Inc
10/28/2011 TO 7/24/2015
What does it take these days to count as a major new discovery?
Event
Volume
Values
Issued: 31,368,363
Diluted: 31,368,363
High: $0.56 on 6/10/2015
Low: $0.34 on 7/23/2015
Max Volume: 1,322,900 on 3/17/2015
Max Value: $525,853 on 3/17/2015
KaiserResearch.com
PRB - TSXV - Daily - CAD $0.35
Copyright 2015 Kaiser Research

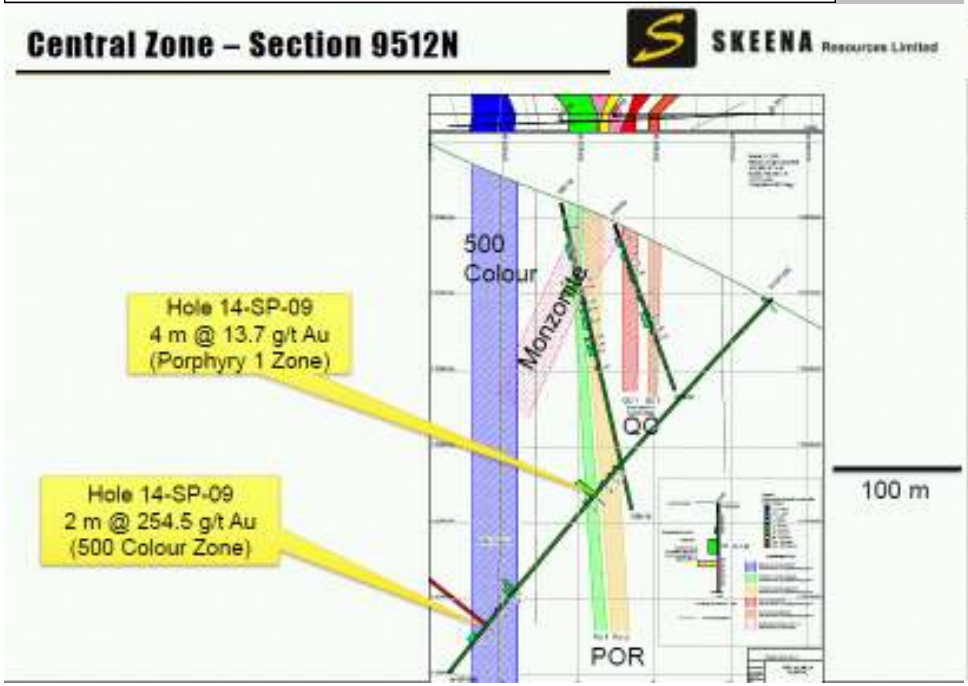
Uravan Minerals Inc
11/1/2011 TO 7/28/2015
2012
2013
2014
2015
$0.35
$0.30
$0.25
$0.20
$0.15
$0.10
$0.05
$0.00
Event
Volume
4,000,000
3,000,000
2,000,000
1,000,000
Values
$250,000
$125,000
Issued: 38,544,012
Diluted: 41,284,012
High: $0.32 on 9/4/2012
Low: $0.03 on 4/19/2013
Max Volume: 2,143,800 on 10/7/2014
Max Value: $102,603 on 9/6/2012
KaiserResearch.com
UVN - TSXV - Daily - CAD $0.14
Copyright 2015 Kaiser Research

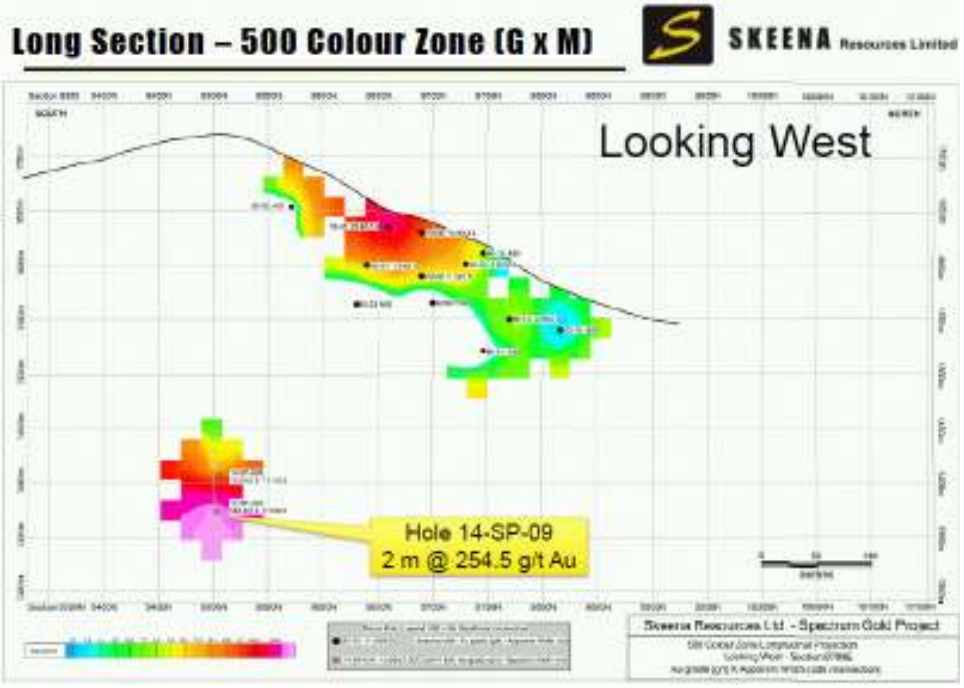

URAVAN
MINERALS INC
Athabasca Basin
Claims, Corridors
and Uranium Mines/Deposits
Legend
Outer Ring
Stewardson
Halliday

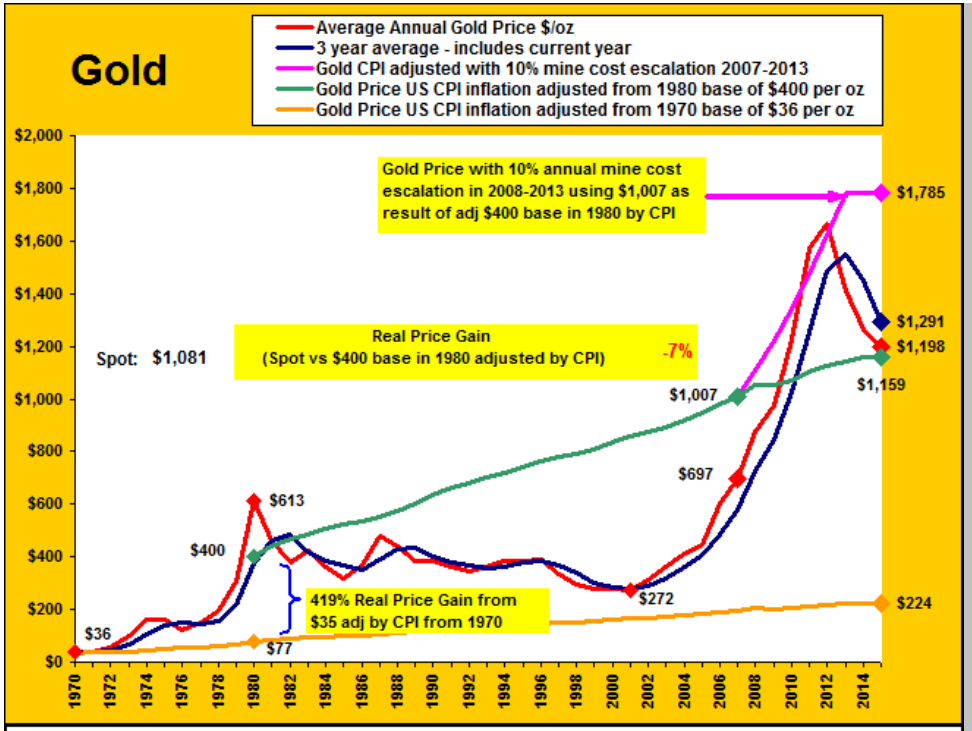

FINDING DEPOSITS USING SURFACE GEOCHEMISTRY—THE MODEL
Overburden
Mobilized Metals and Distinct Isotopic Signatures
Sandstone
Alteration Halo
Post-sandstone fractures
Leakage of Gaseous Compounds and Complexes along Fractures
Basin Fluid Flow
Unconformity Surface
Uranium Deposit
Crystalline Basement
Reactivated Basement Structure
Geochemical Exploration Techniques
Mobilized Metals and Distinct Isotopic Signatures
Biogeochemical sampling and soil sampling
Alteration Halo

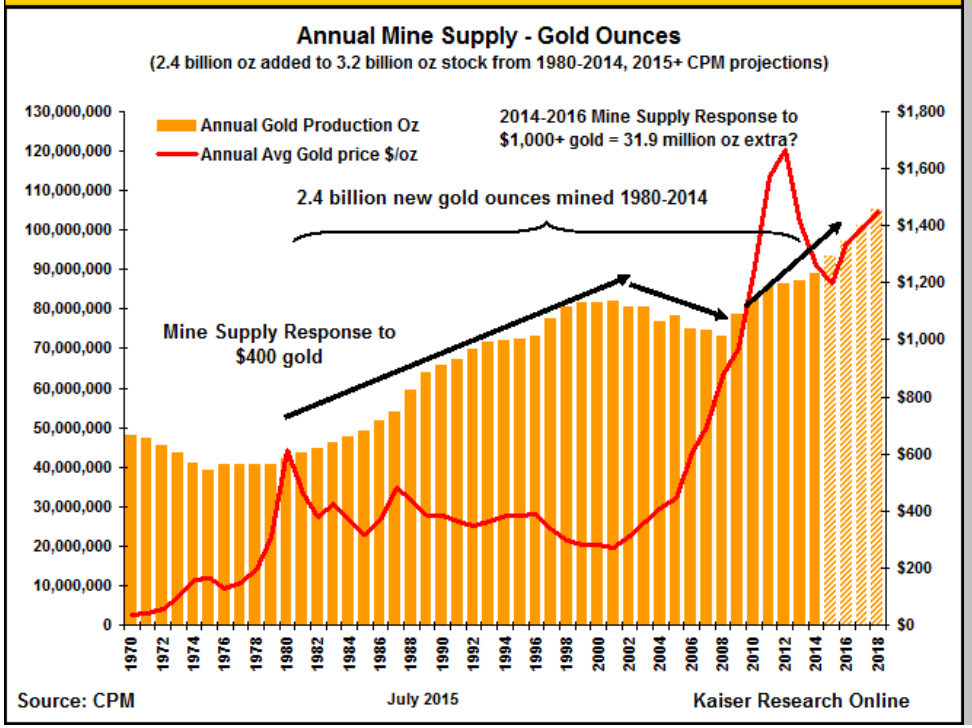

Stewardson Lake
Dufferin Lake Fault
Boron Anomaly Area
ZTEM L-1330N
Cross Section Line
SL15-004
SL15-003
L1290
L1300
L1310
L1320
L1330
L1340
L1350
L1360
L1370
L1380
L1390
L5
L1
L8
Clay Samples
Pb207/Pb206 < 0.625
2014
2011
Uranium results
U > 2.50ppm (2014)
MET Methanol
> 1.0
Background Sample Results
Tree Core Samples
Pb207/Pb206 < 0.835
Drill hole (collar and trace)
Dufferin Lake Fault (interp.)
30Hz IP conductors
2D inversion conductors
ZTEM flightlines (2013)
Interpreted Lineaments
Conductor Trace
(ZTEM 1500m depth)
ohm-m
URAVAN
MINERALS INC
Stewardson Project
Area B - ZTEM Survey
2D Inversion Slice
1300m Depth
0
1,000m
2,000m

$8 million raised with no warrants!

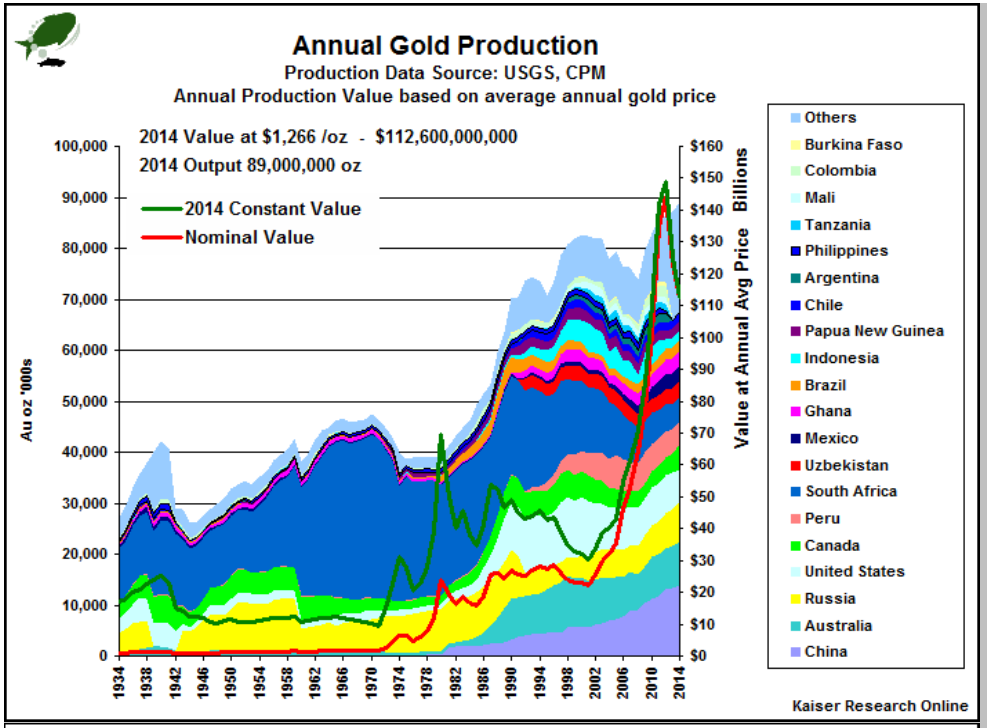


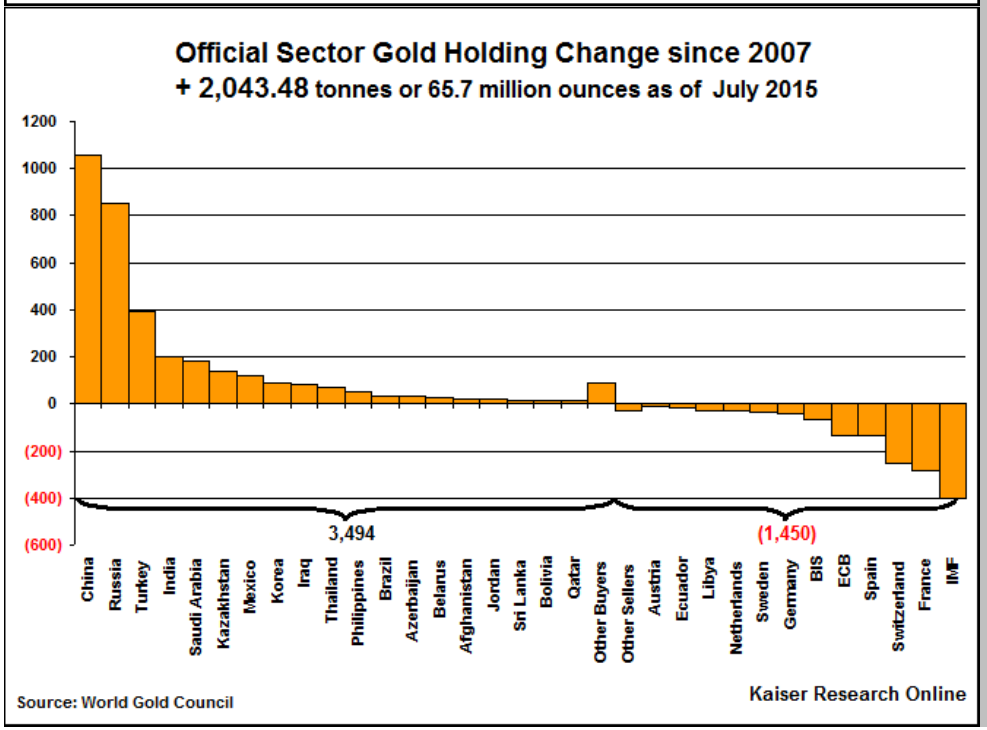




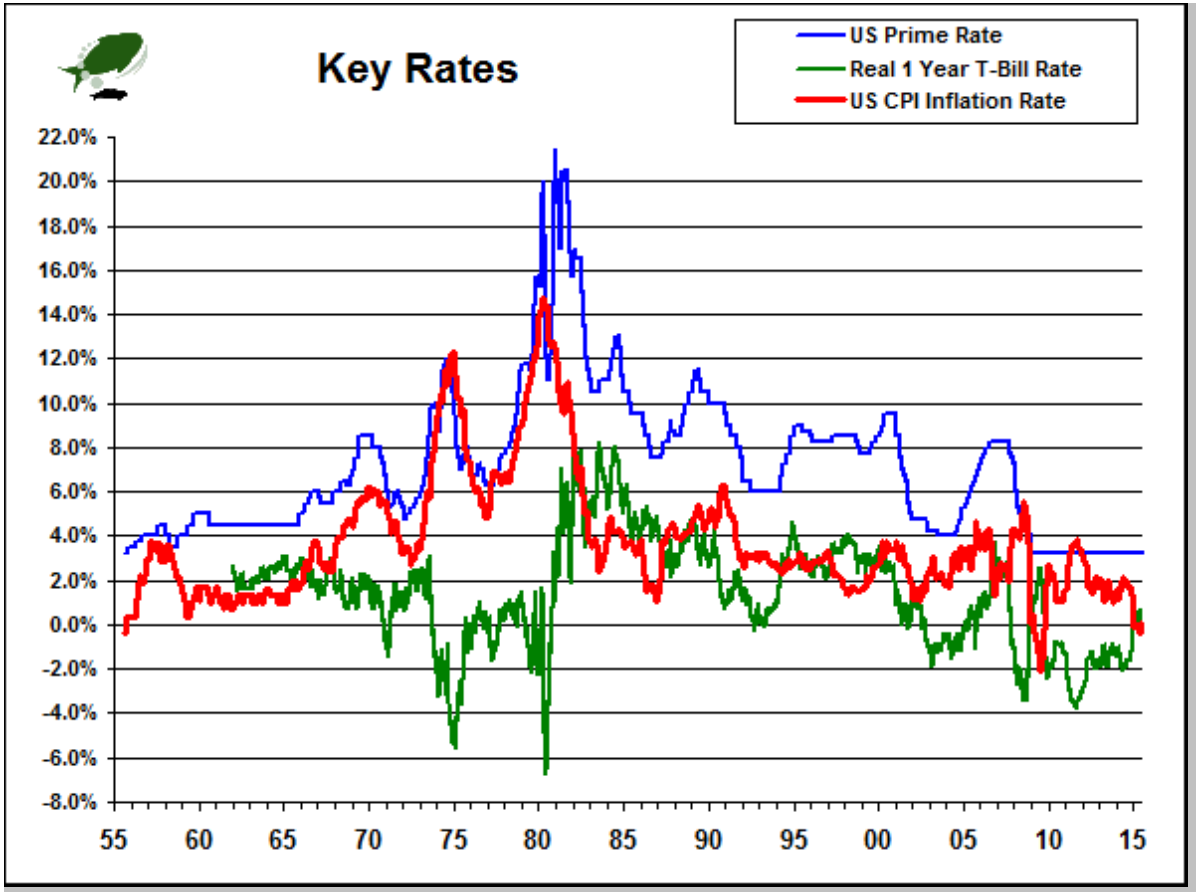


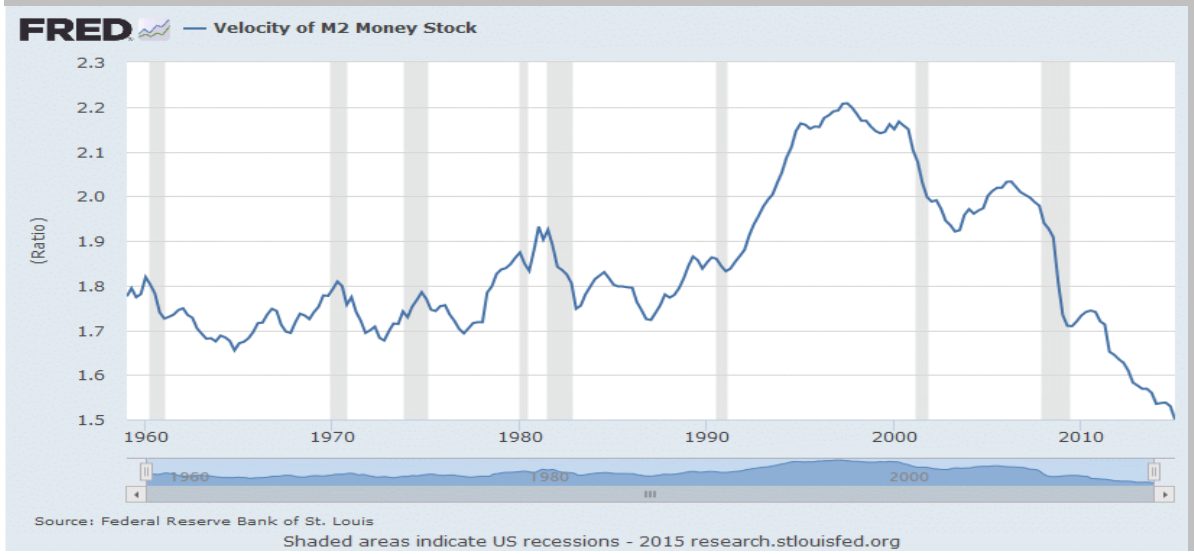
If the world wants more gold than already exists above ground, the price will have to rise above $1,200 per oz while costs stay where they are.



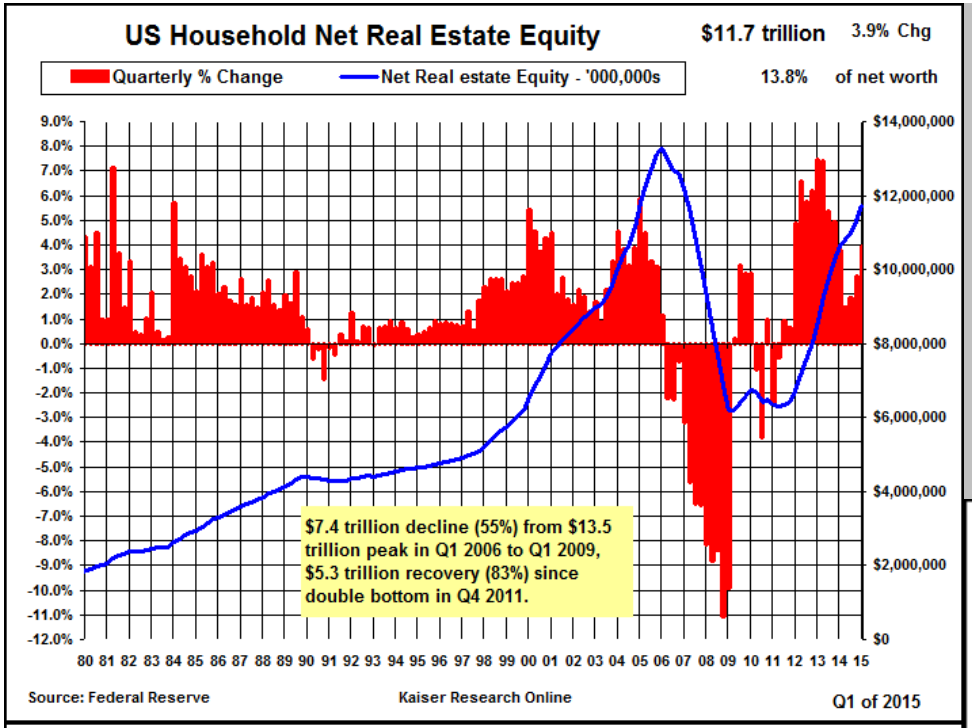


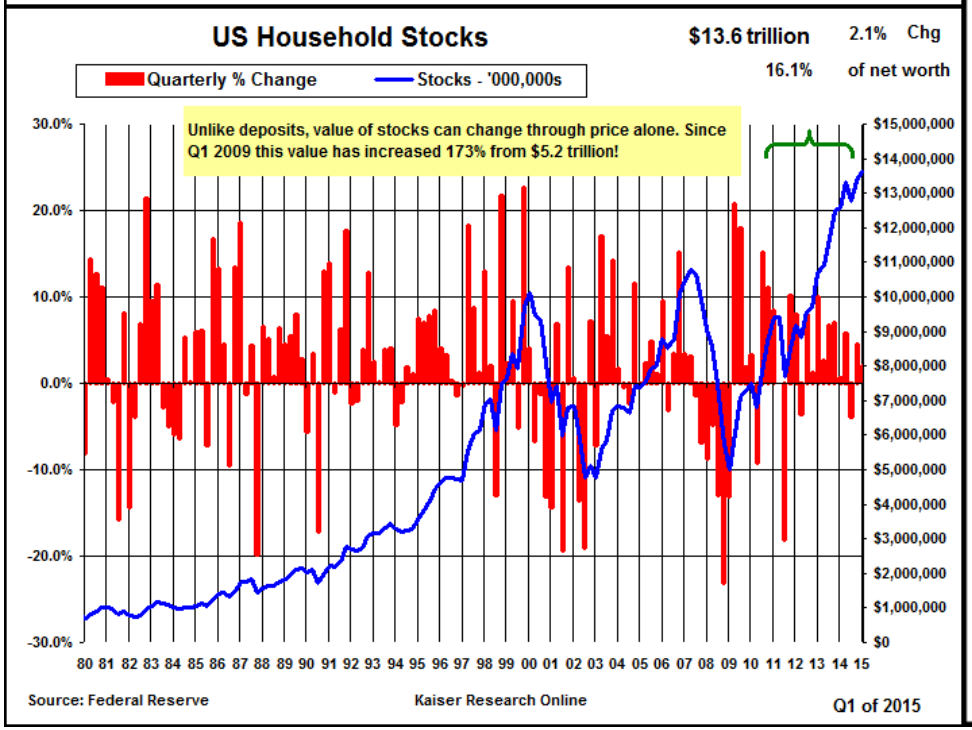
China mined 1,961 t after reporting 1,054 t central bank reserves in 2009. In 2015 it reported reserves had grown only 631 t to 1,658 t. Is China a net seller of gold?



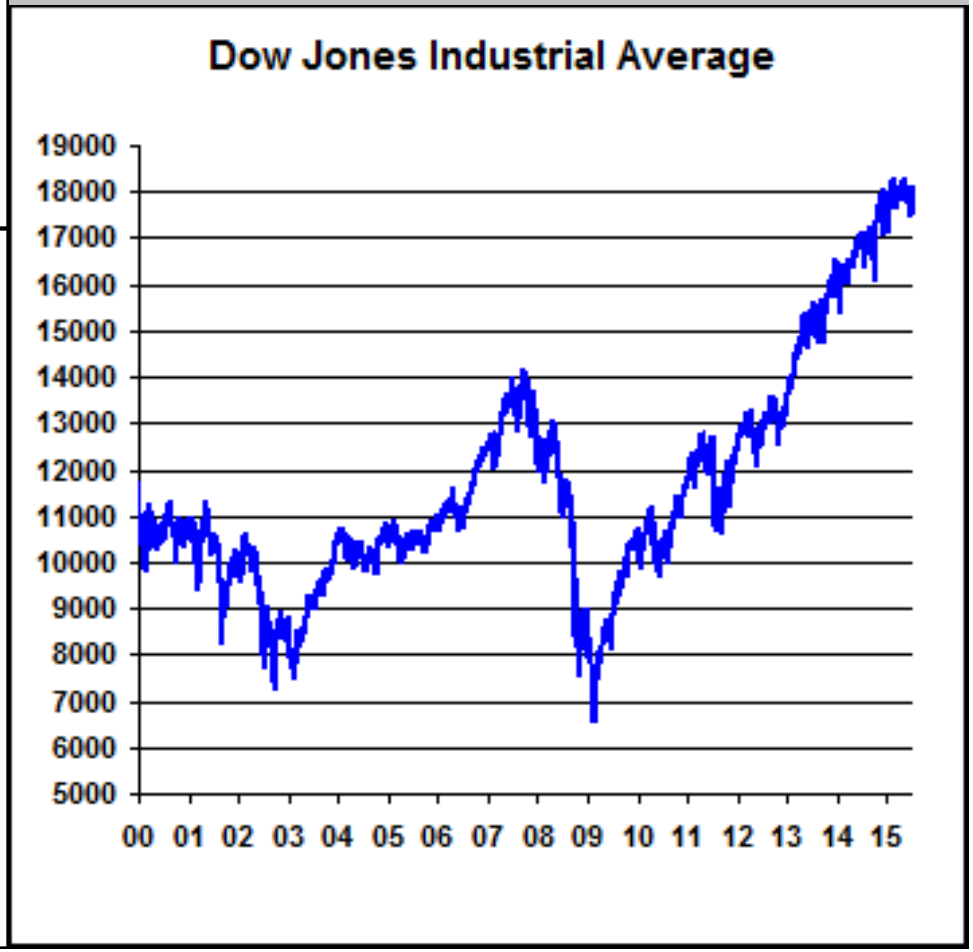


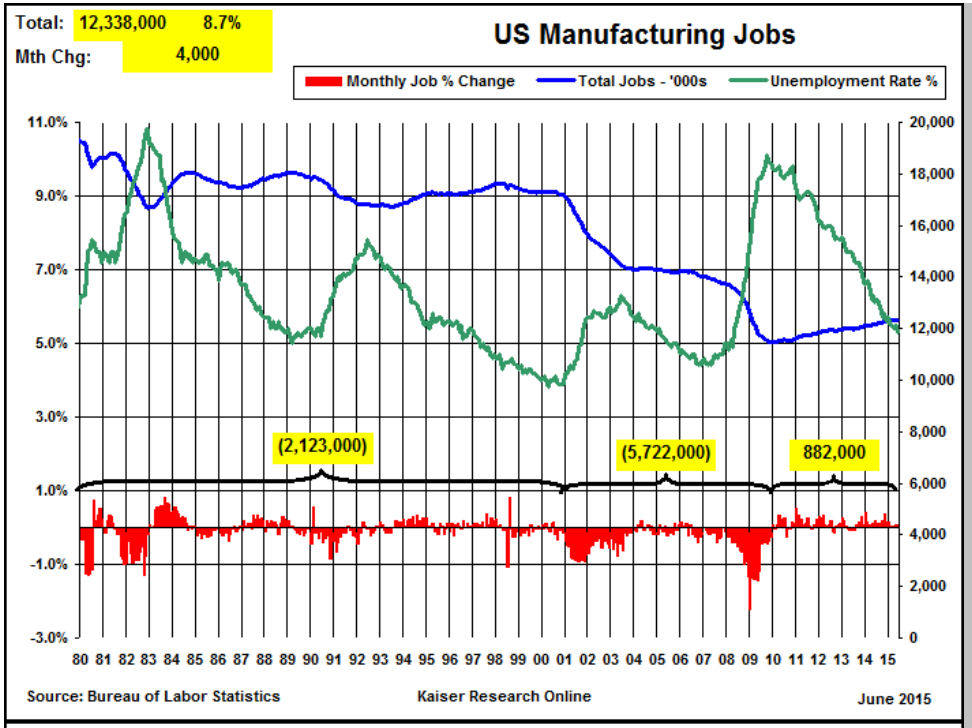
QE has not unleashed inflation because the velocity of money has slid to a record low due to a confidence crisis.

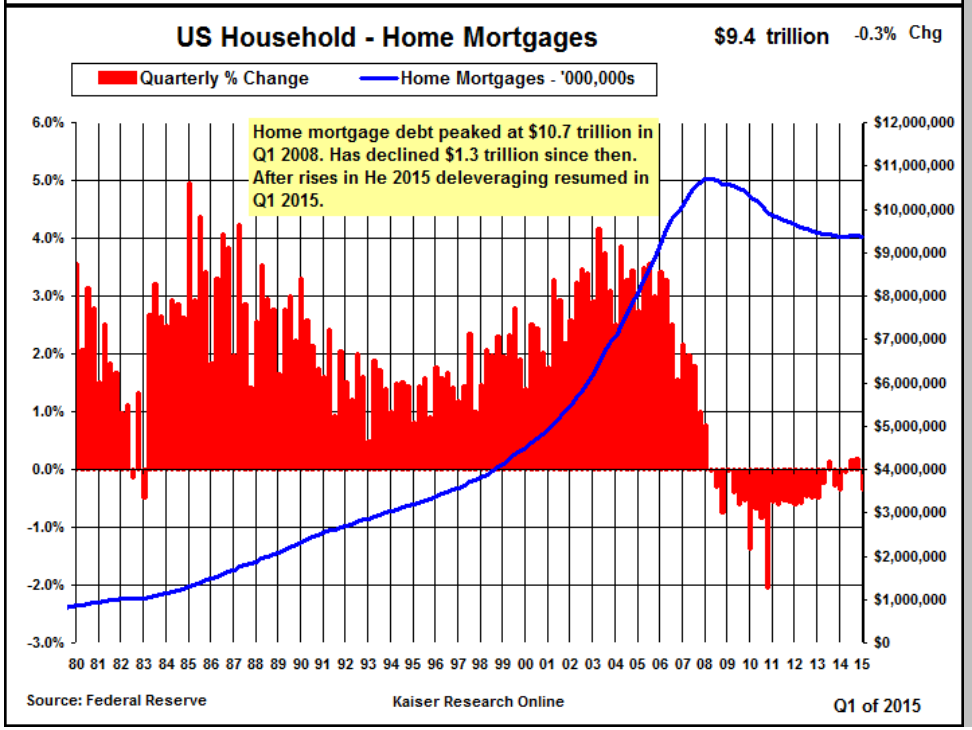




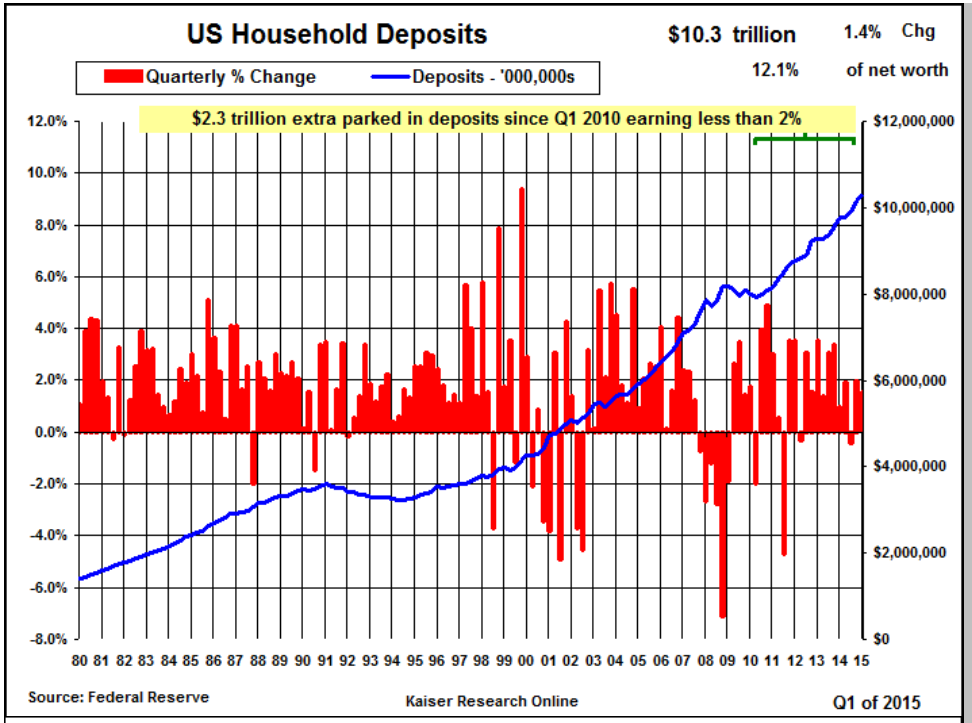
Recovery in household net worth too skewed to unleash a wealth effect that accelerates the velocity of money.

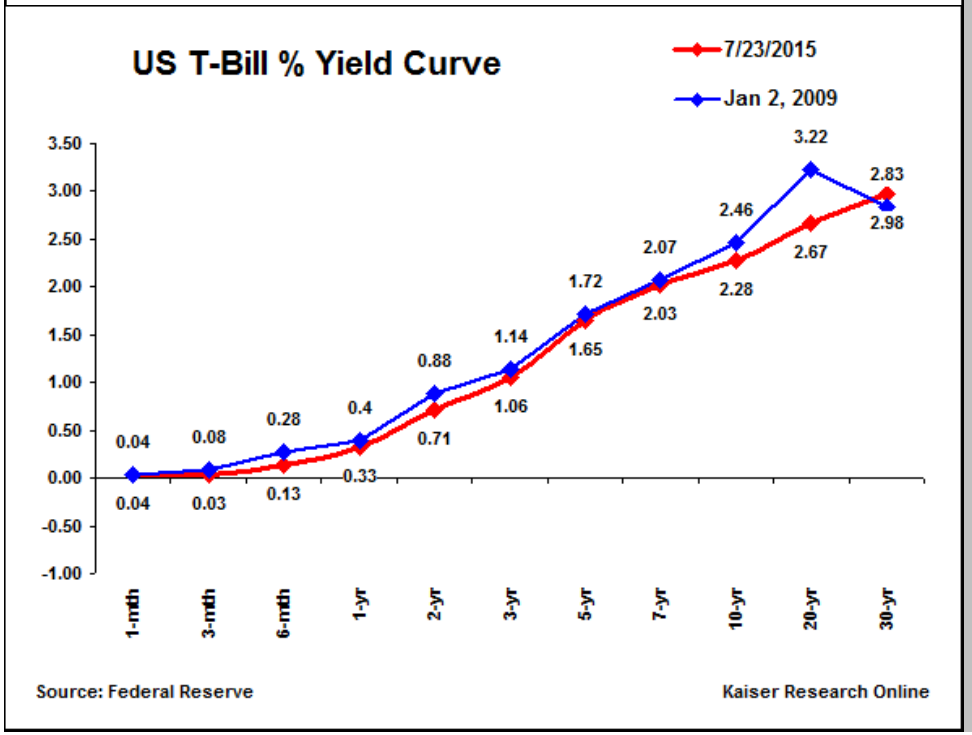




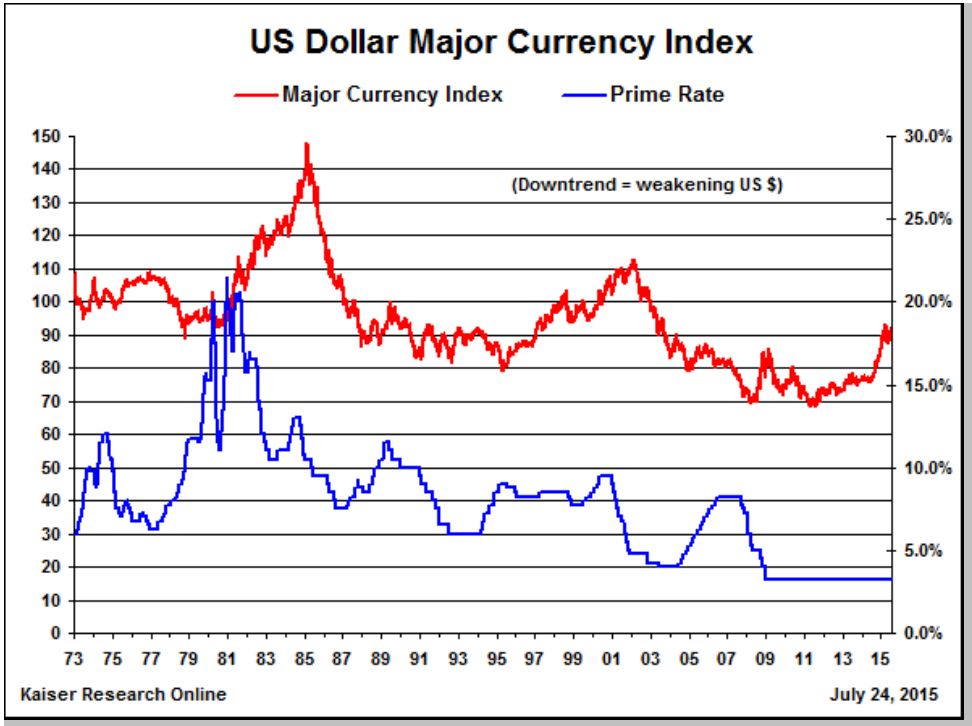


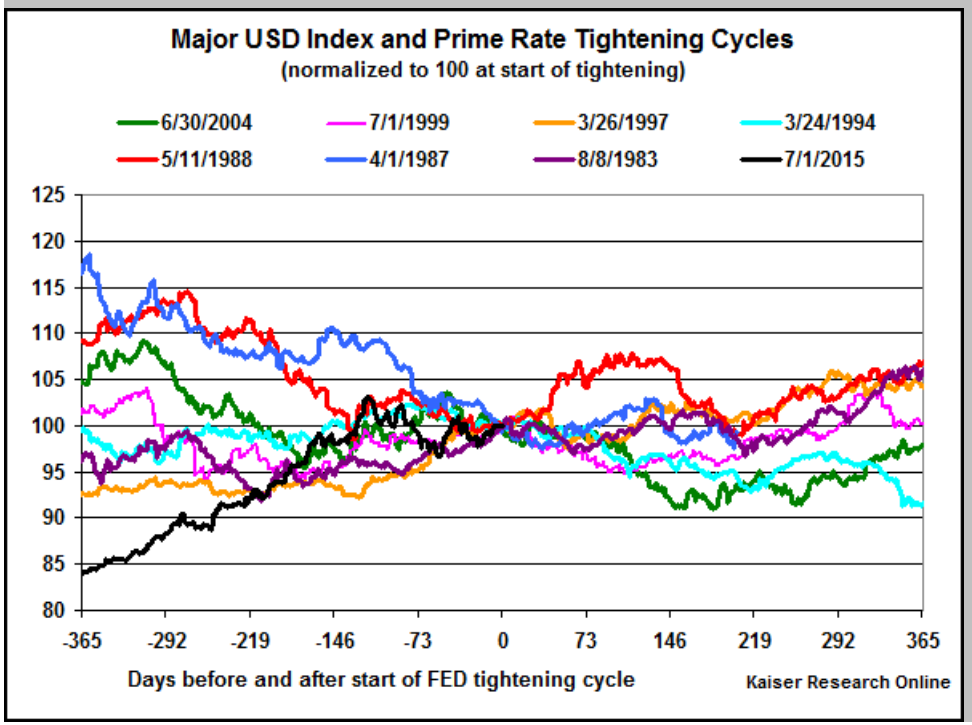
Deleveraging and stagnant wage growth has created an end-times mentality that inhibits a broad based credit expansion and organic growth.



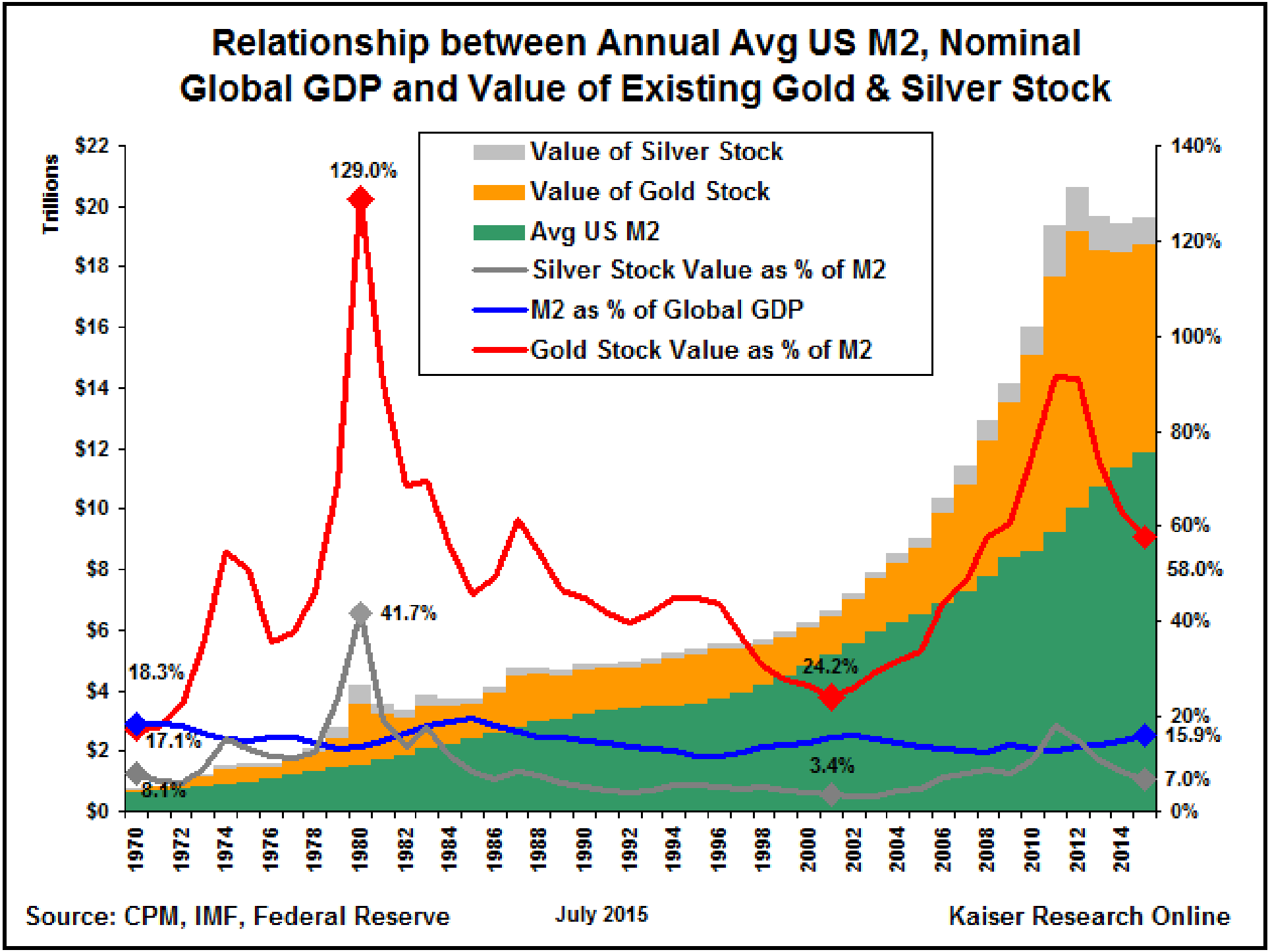


Low yields and high savings restrain consumption by a retiree generation with the greatest longevity expectation in history.





The false expectation is that the normalization of interest rates will make everything worse by sending the USD higher, sagging the bond market, popping equity markets, and ultimately the global economy. Good for neither commodity nor gold prices.


Relationship between Annual Avg US M2, Nominal Global GDP and Value of Existing Gold & Silver Stock
Value of Silver Stock
Value of Gold Stock
Avg US M2
Silver Stock Value as % of M2
M2 as % of Global GDP
Gold Stock Value as % of M2
Trillions
$22
$20
$18
$16
$14
$12
$10
$8
$6
$4
$2
$0
140%
120%
100%
80%
60%
58.0%
40%
20%
15.9%
7.0%
0%
129.0%
41.7%
18.3%
17.1%
8.1%
24.2%
3.4%
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
Source: CPM, IMF, Federal Reserve
July 2015
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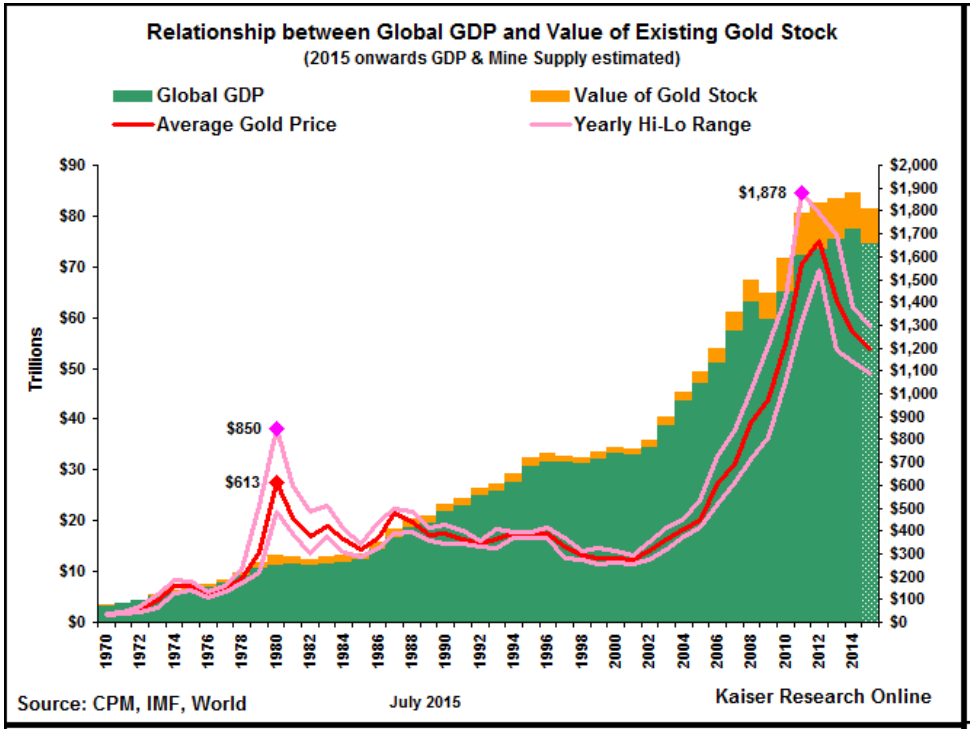
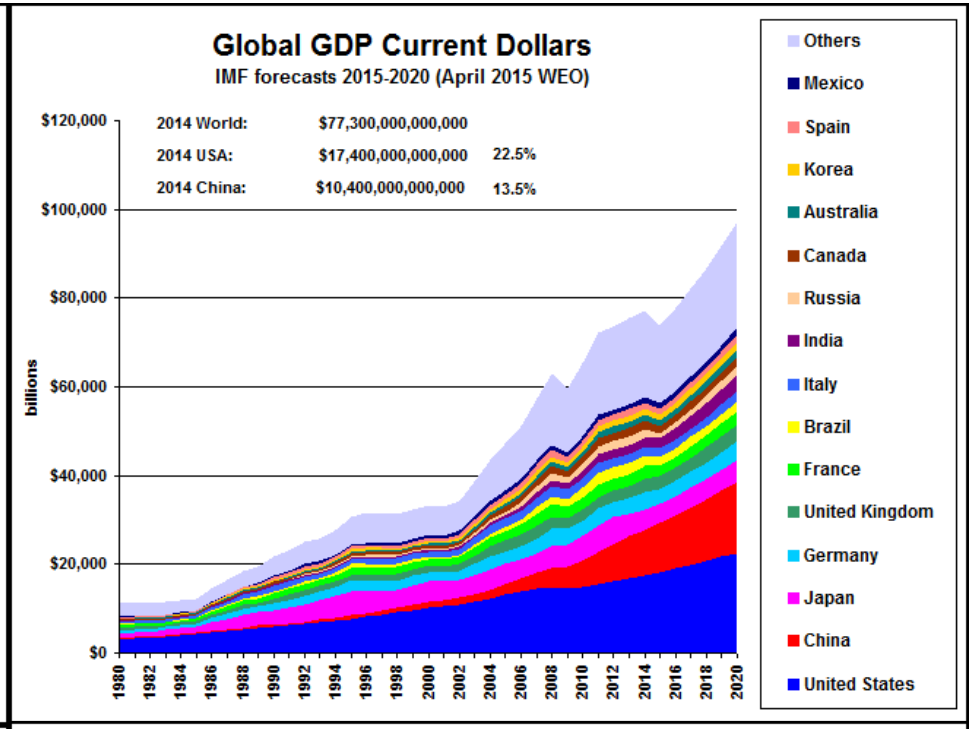
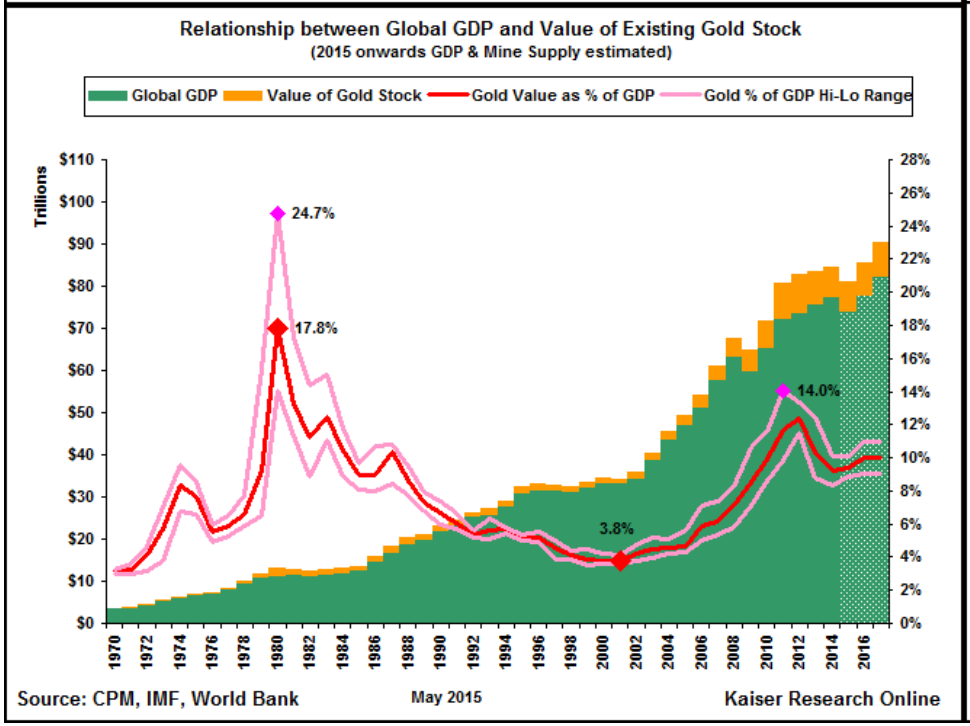
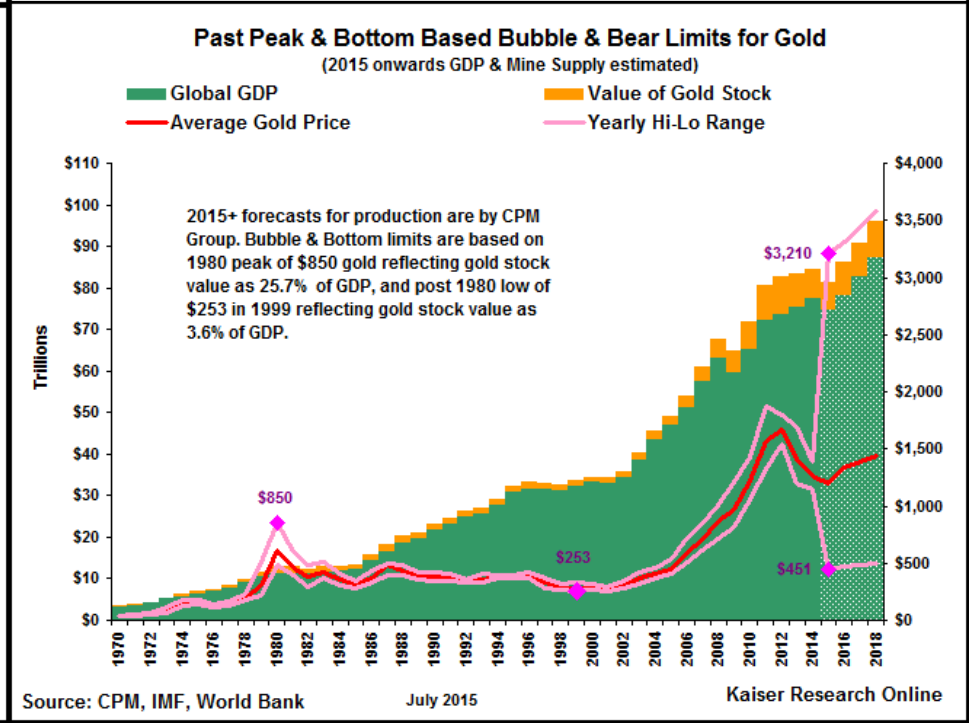
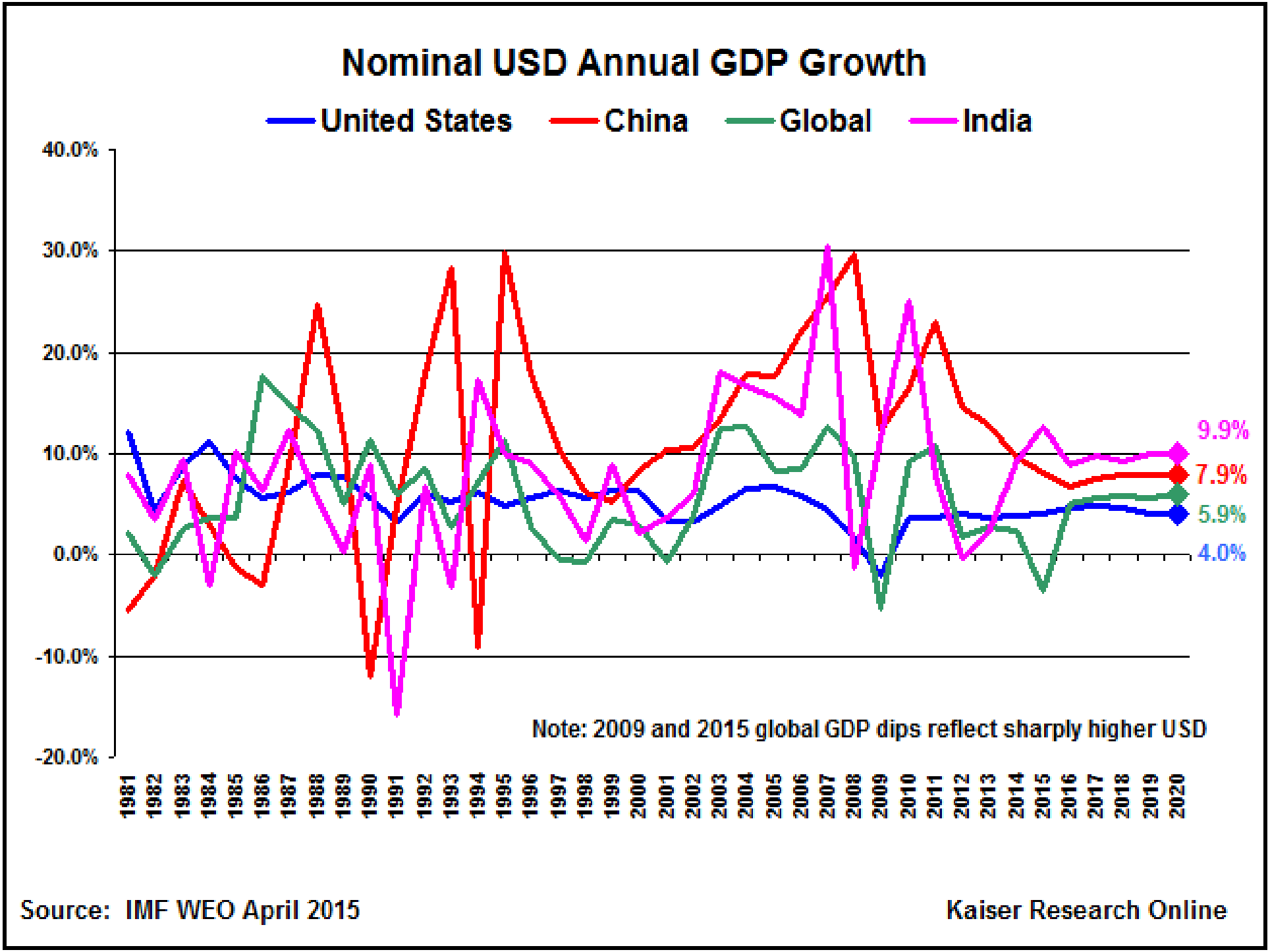
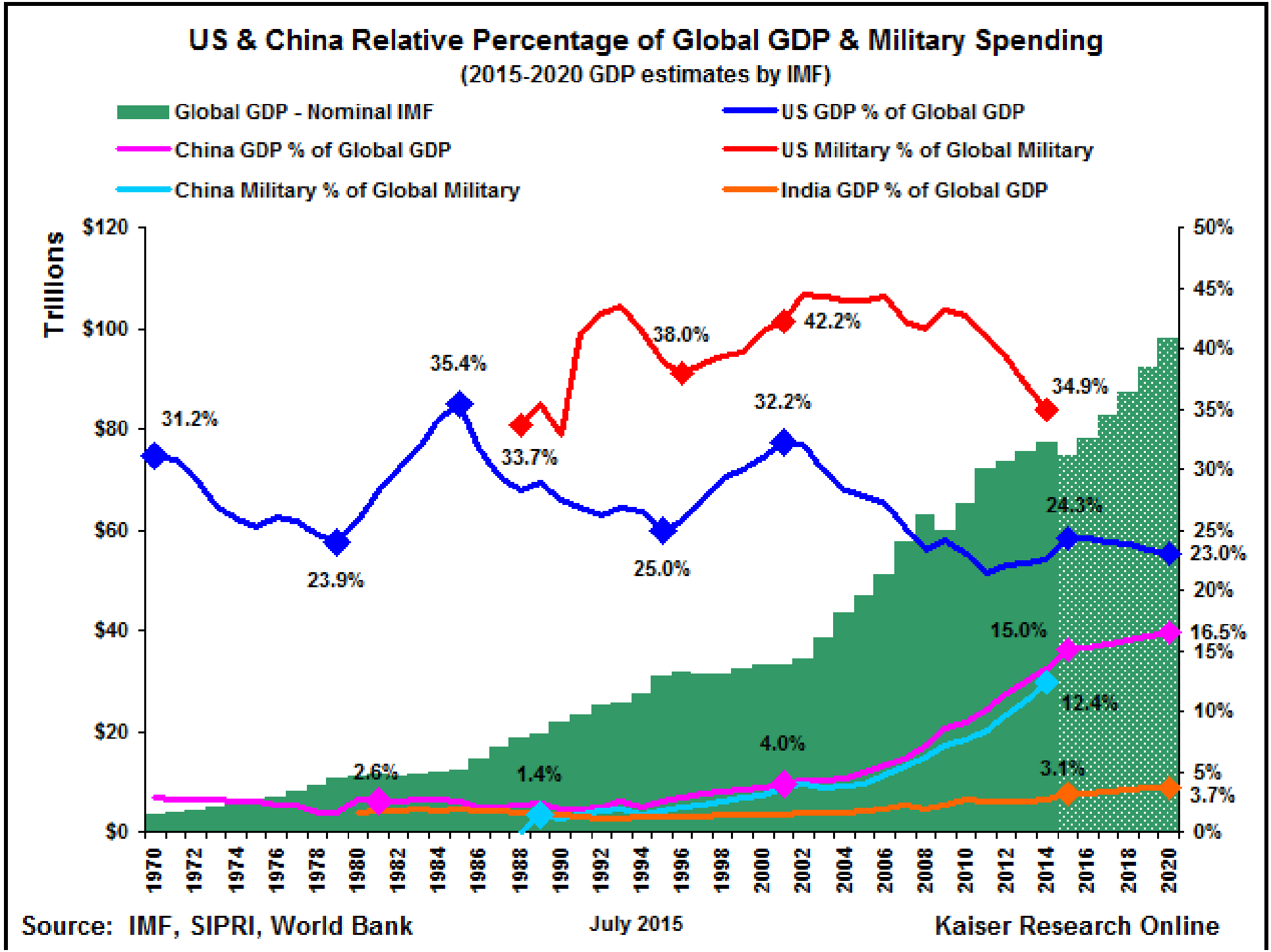

Relationship between Global GDP and Value of Existing Gold Stock
(2015 onwards GDP & Mine Supply estimated)
Global GDP
Value of Gold Stock
Average Gold Price
Yearly Hi-Lo Range
Trillions
$850
$613
$1,878
Source: CPM, IMF, World
July 2015
Kaiser Research Online

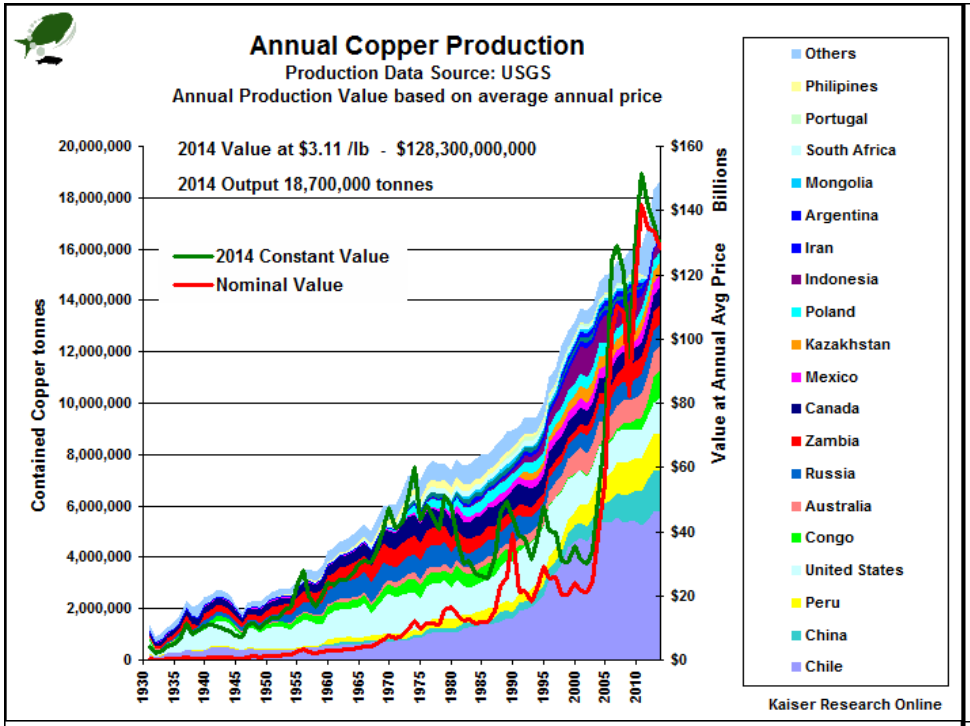

Global GDP Current Dollars
IMF forecasts 2015-2020 (April 2015 WEO)
2014 World: $77,300,000,000,000
2014 USA: $17,400,000,000,000 22.5%
2014 China: $10,400,000,000,000 13.5%
billions
Others
Mexico
Spain
Korea
Australia
Canada
Russia
India
Italy
Brazil
France
United Kingdom
Germany
Japan
China
United States

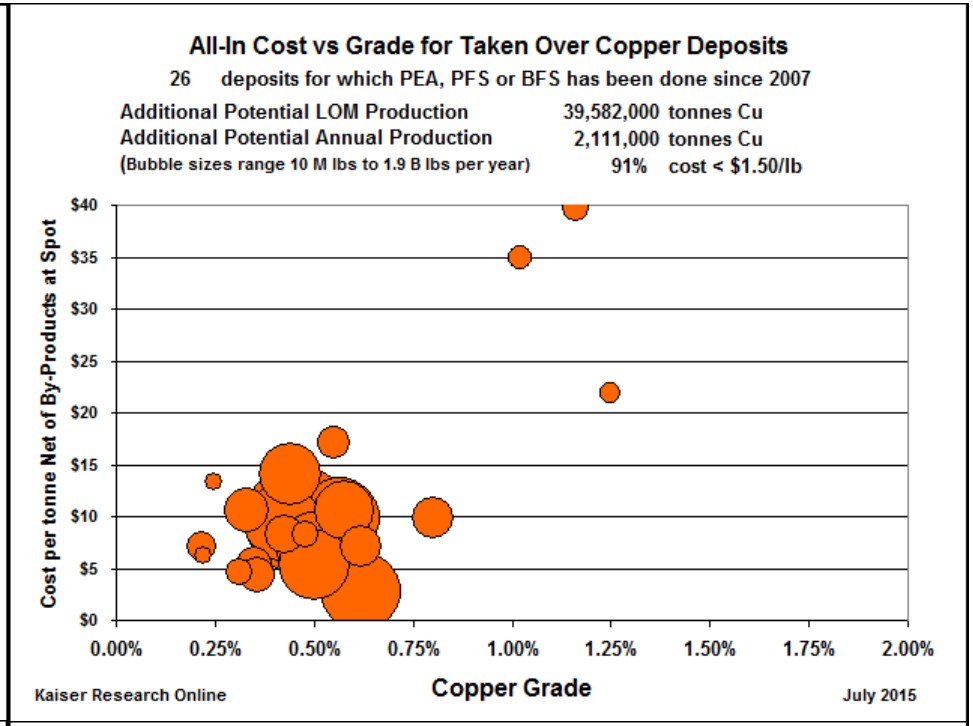

Relationship between Global GDP and Value of Existing Gold Stock
(2015 onwards GDP & Mine Supply estimated)
Global GDP
Value of Gold Stock
Gold Value as % of GDP
Gold % of GDP Hi-Lo Range
Trillions
24.7%
17.8%
3.8%
14.0%
Source: CPM, IMF, World Bank
May 2015
Kaiser Research Online

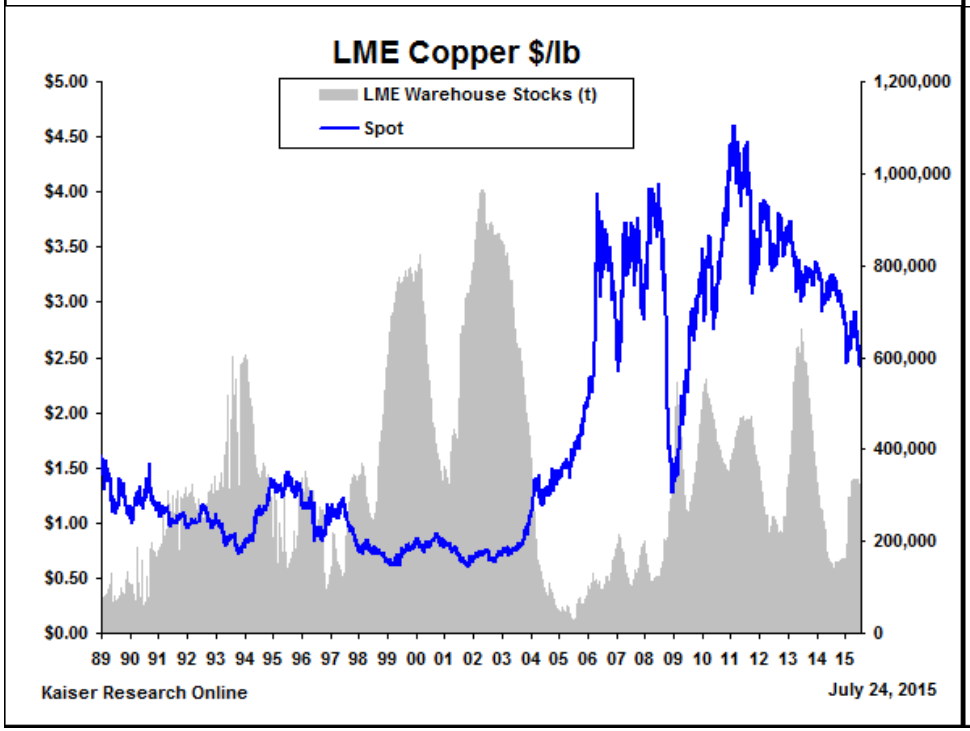

Past Peak & Bottom Based Bubble & Bear Limits for Gold
(2015 onwards GDP & Mine Supply estimated)
Global GDP
Value of Gold Stock
Average Gold Price
Yearly Hi-Lo Range
2015+ forecasts for production are by CPM Group. Bubble & Bottom limits are based on 1980 peak of $850 gold reflecting gold stock value as 25.7% of GDP, and post 1980 low of $253 in 1999 reflecting gold stock value as 3.6% of GDP.
Trillions
$850
$253
$3,210
$451
Source: CPM, IMF, World Bank
July 2015
Kaiser Research Online

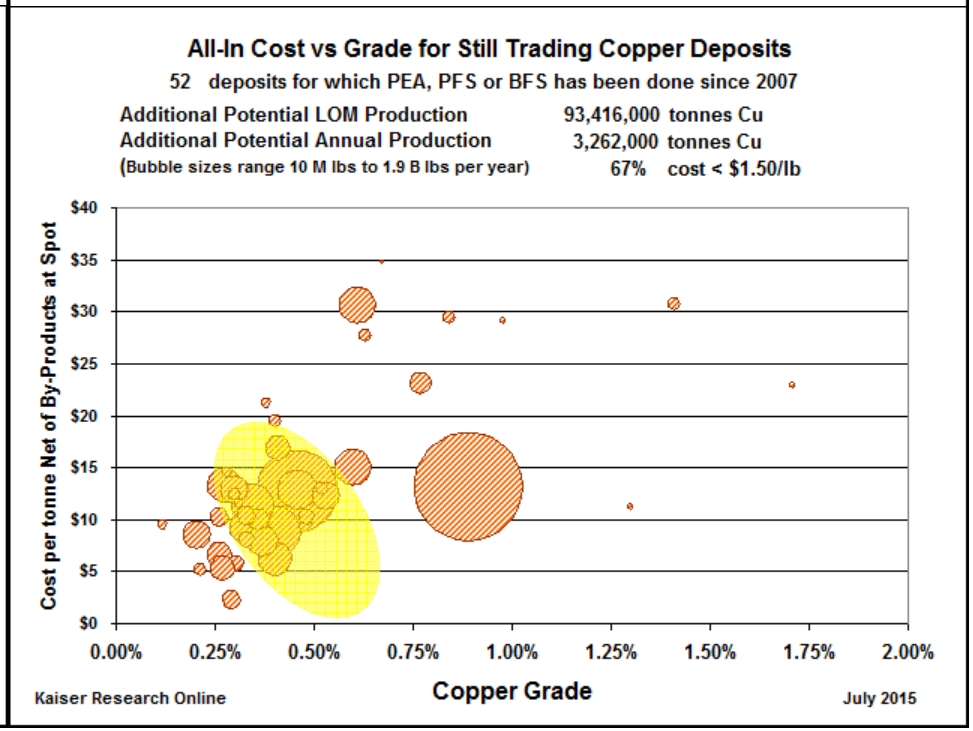

Nominal USD Annual GDP Growth
United States
China
Global
India
40.0%
30.0%
20.0%
10.0%
0.0%
-10.0%
-20.0%
9.9%
7.9%
5.9%
4.0%
Note: 2009 and 2015 global GDP dips reflect sharply higher USD
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
Source: IMF WEO April 2015
Kaiser Research Online


US & China Relative Percentage of Global GDP & Military Spending
(2015-2020 GDP estimates by IMF)
Global GDP - Nominal IMF
US GDP % of Global GDP
China GDP % of Global GDP
US Military % of Global Military
China Military % of Global Military
India GDP % of Global GDP
Trillions
$120
$100
$80
$60
$40
$20
$0
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
31.2%
23.9%
35.4%
33.7%
38.0%
25.0%
42.2%
32.2%
34.9%
24.3%
23.0%
15.0%
16.5%
12.4%
2.6%
1.4%
4.0%
3.1%
3.7%
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
Source: IMF, SIPRI, World Bank
July 2015
Kaiser Research Online


Annual Copper Production
Production Data Source: USGS
Annual Production Value based on average annual price
2014 Value at $3.11 /lb - $128,300,000,000
2014 Output 18,700,000 tonnes
2014 Constant Value
Nominal Value
Contained Copper tonnes
Value at Annual Avg Price
Billions
Others
Philipines
Portugal
South Africa
Mongolia
Argentina
Iran
Indonesia
Poland
Kazakhstan
Mexico
Canada
Zambia
Russia
Australia
Congo
United States
Peru
China
Chile
Kaiser Research Online

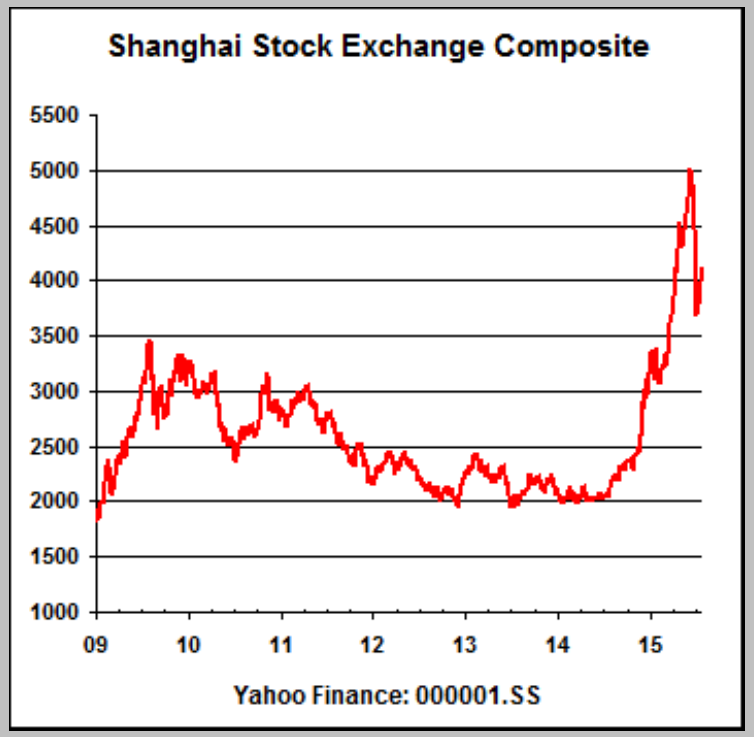

All-In Cost vs Grade for Taken Over Copper Deposits
26 deposits for which PEA, PFS or BFS has been done since 2007
Additional Potential LOM Production 39,582,000 tonnes Cu
Additional Potential Annual Production 2,111,000 tonnes Cu
(Bubble sizes range 10 M lbs to 1.9 B lbs per year) 91% cost < $1.50/lb
Cost per tonne Net of By-Products at Spot
Copper Grade
Kaiser Research Online
July 2015


LME Copper $/lb
LME Warehouse Stocks (t)
Spot
Kaiser Research Online
July 24, 2015


All-In Cost vs Grade for Still Trading Copper Deposits
52 deposits for which PEA, PFS or BFS has been done since 2007
Additional Potential LOM Production 93,416,000 tonnes Cu
Additional Potential Annual Production 3,262,000 tonnes Cu
(Bubble sizes range 10 M lbs to 1.9 B lbs per year) 67% cost < $1.50/lb
Cost per tonne Net of By-Products at Spot
Copper Grade
Kaiser Research Online
July 2015

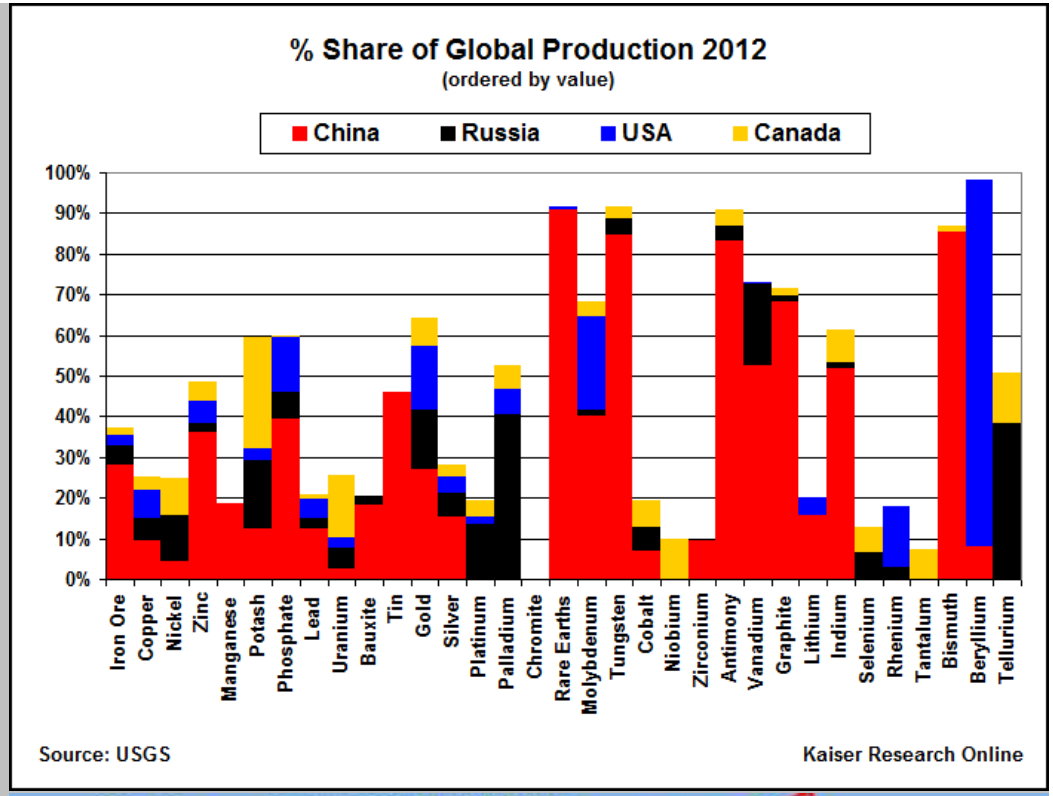
Gold Bug & Commodity Cycle Narratives

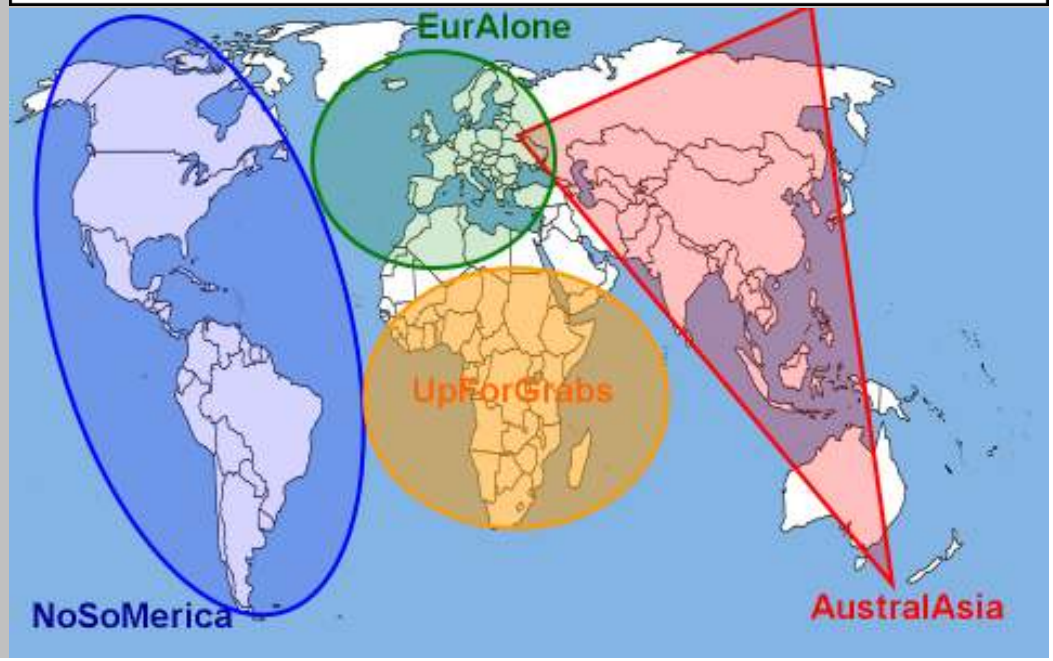
- Conventional arguments for higher gold prices do not promise the real price gains needed to turn high hanging fruit into low hanging fruit
- Global prosperity growth coupled with relative decline of American supremacy does promise a higher real gold price
- The China super-cycle is exhausted and India needs 10 years of 10% growth to trigger the next super-cycle
- Main metals are suffering from the traditional glut created by a massive supply mobilization response
- China's margin call fueled liquidation of hard assets is causing the current capitulation washout but it is finite
- If America's attempt to normalize interest rates fails, we descend into a global depression

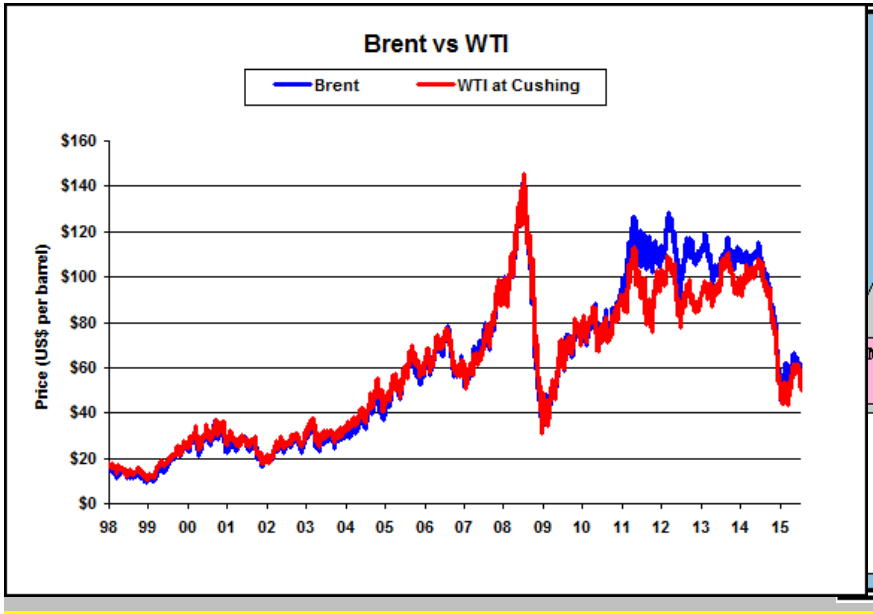


Security of Supply Narratives

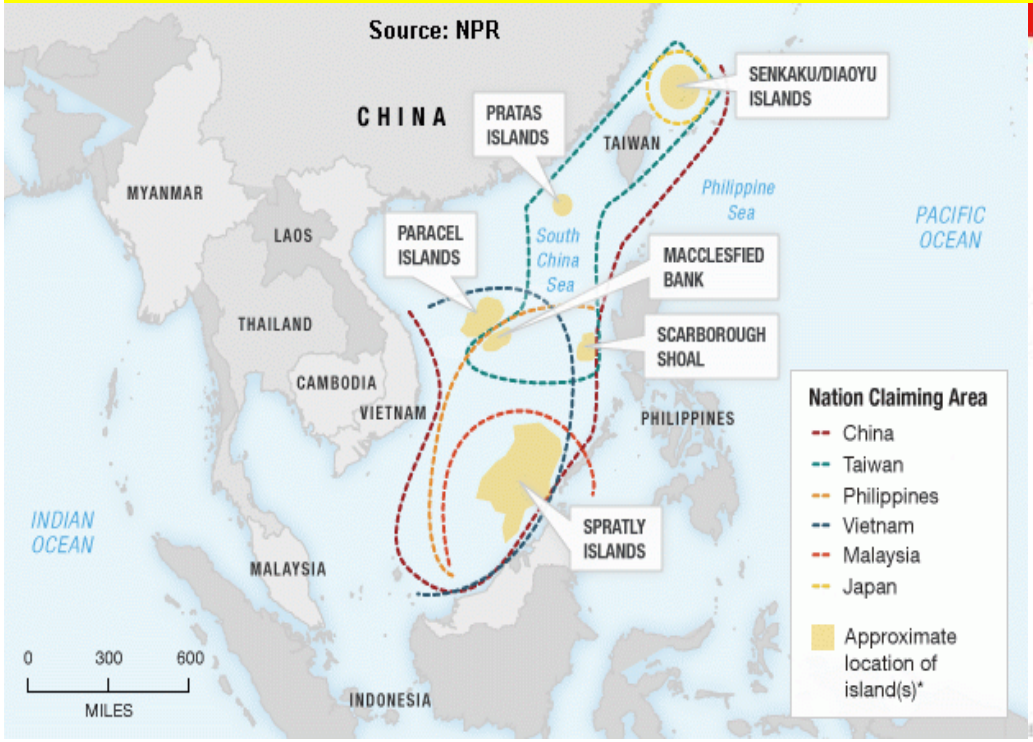
- Geopolitical supply disruptions
- Transportation supply disruptions
- Deposit depletion
- Policy Demand Drivers
- Policy Supply Disrupters
- Usage Innovation
- Process Innovation
- Functionality innovation
- Fashion Trends

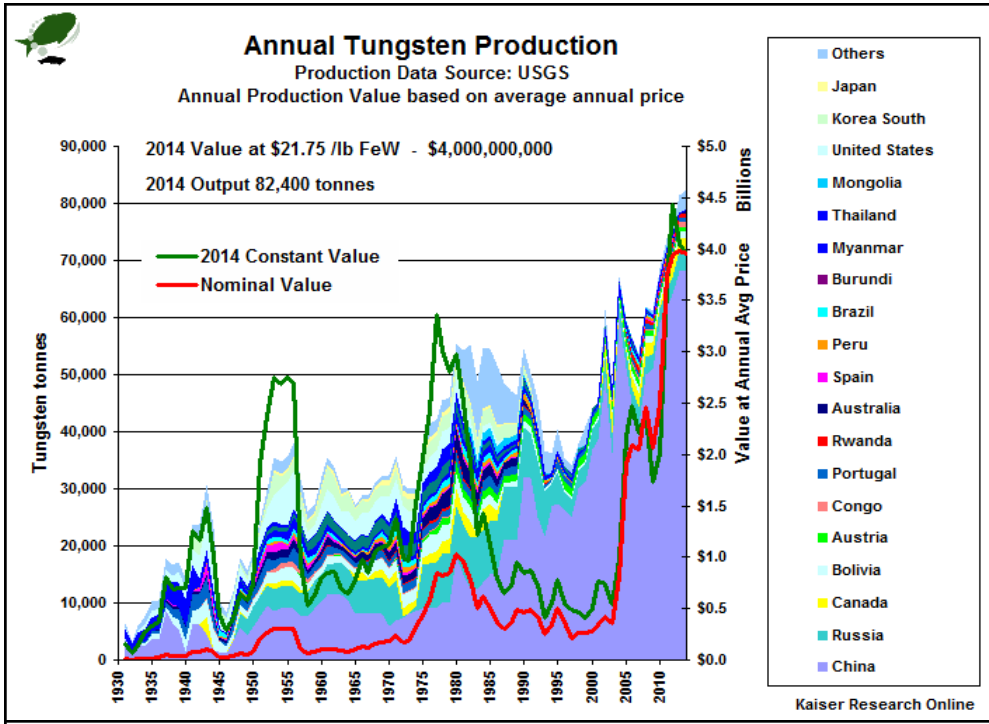


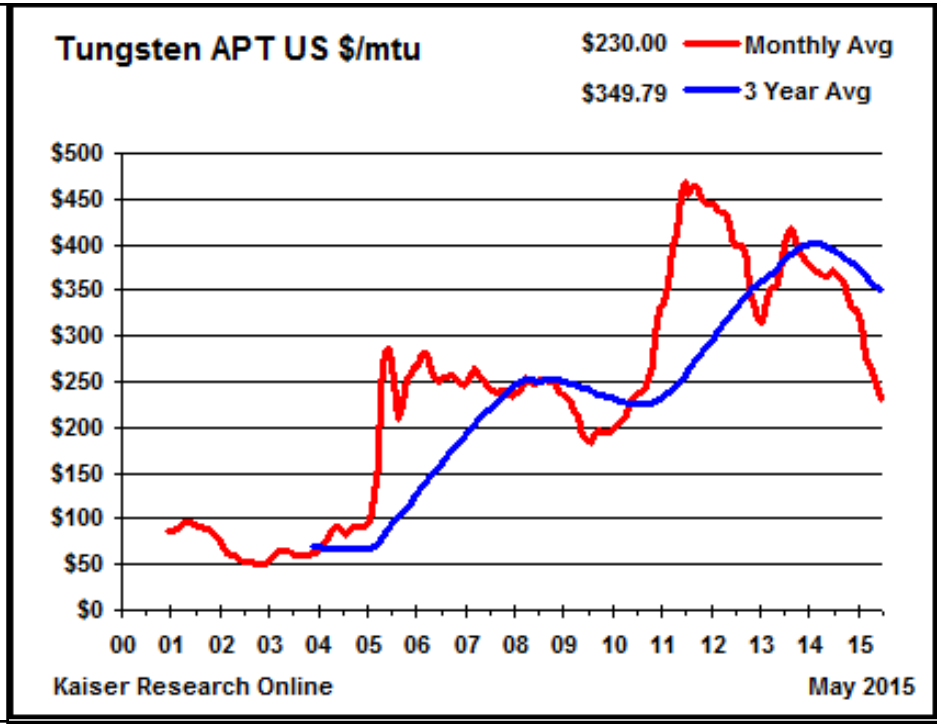


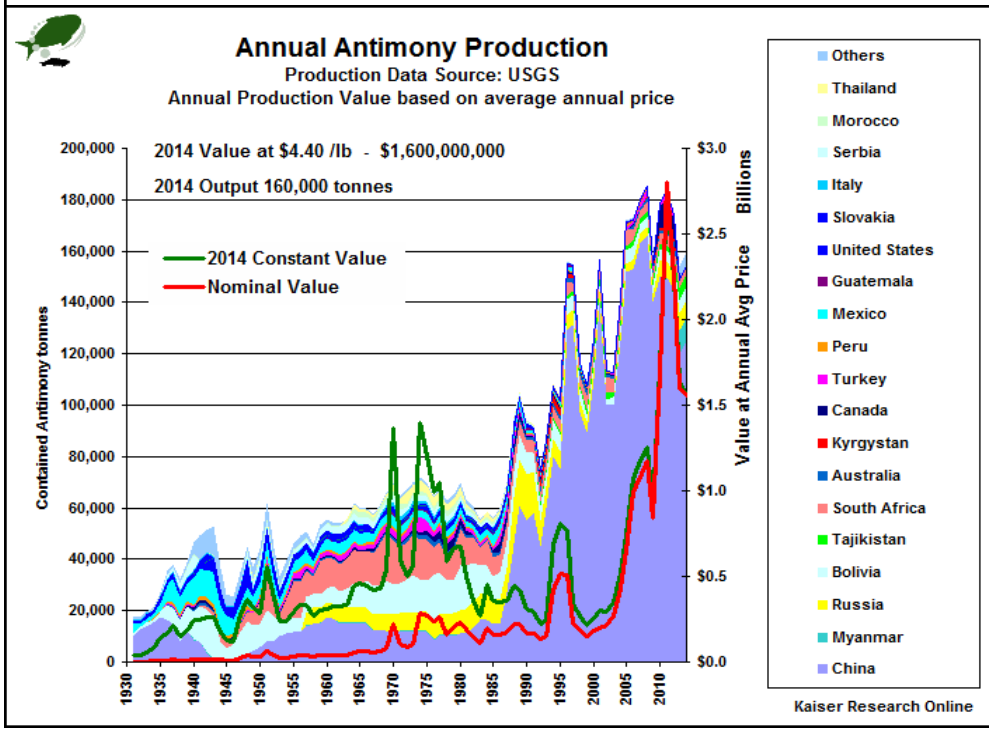


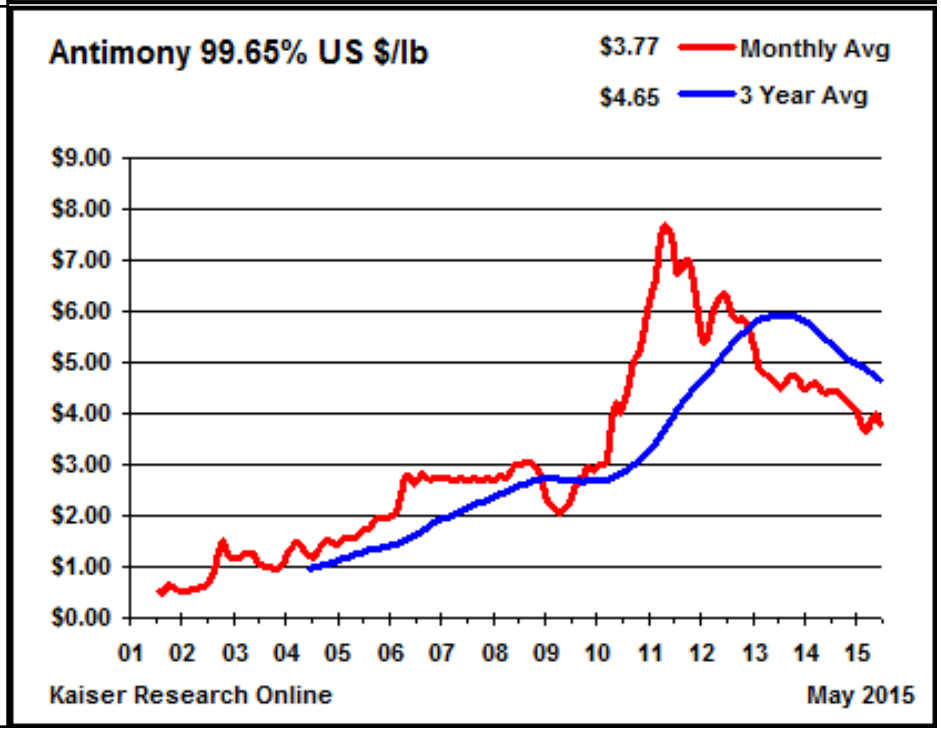
Potential Geopolitical TrainWrecks

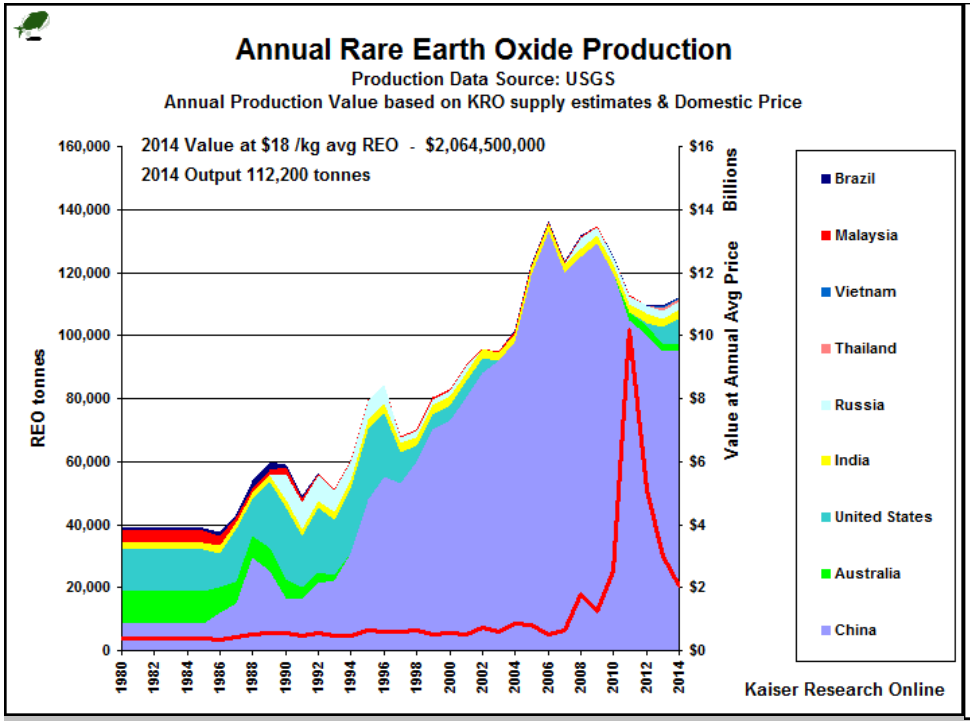


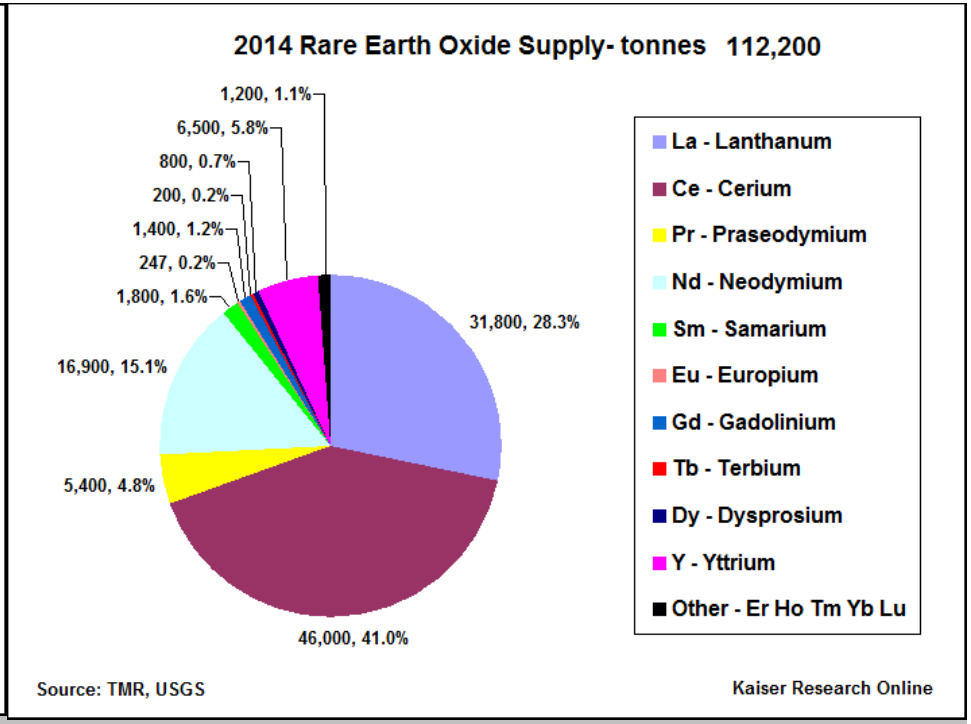

Annual Tungsten Production
Production Data Source: USGS
Annual Production Value based on average annual price
2014 Value at $21.75 /lb FeW - $4,000,000,000
2014 Output 82,400 tonnes
2014 Constant Value
Nominal Value
Tungsten tonnes
Value at Annual Avg Price
Billions
Others
Japan
Korea South
United States
Mongolia
Thailand
Myanmar
Burundi
Brazil
Peru
Spain
Australia
Rwanda
Portugal
Congo
Austria
Bolivia
Canada
Russia
China
Kaiser Research Online

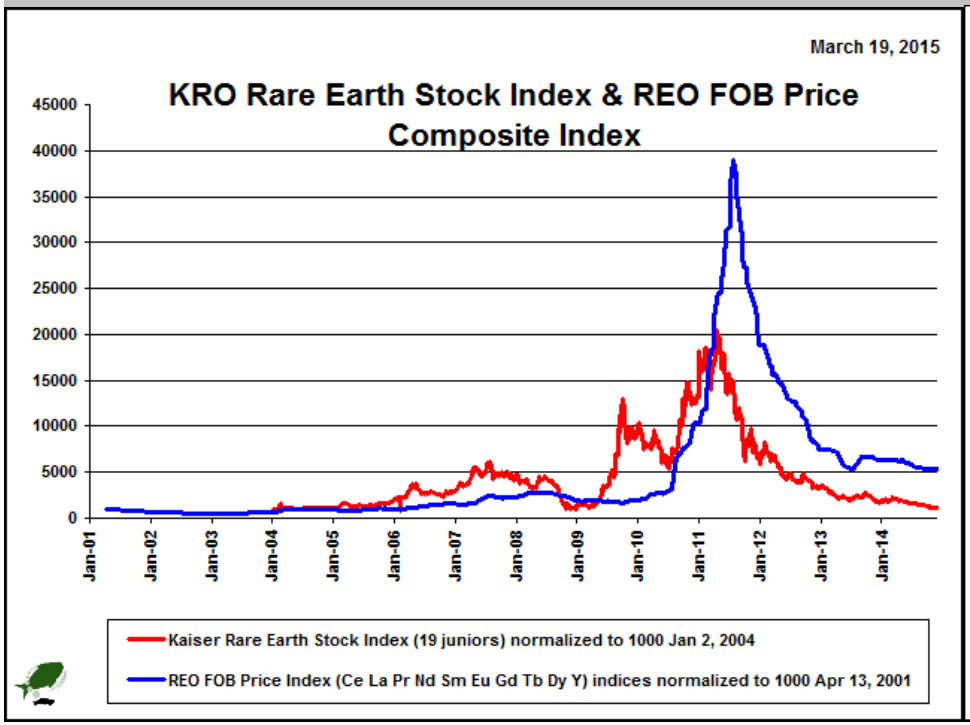

Tungsten APT US $/mtu
$230.00 Monthly Avg
$349.79 3 Year Avg
Kaiser Research Online
May 2015

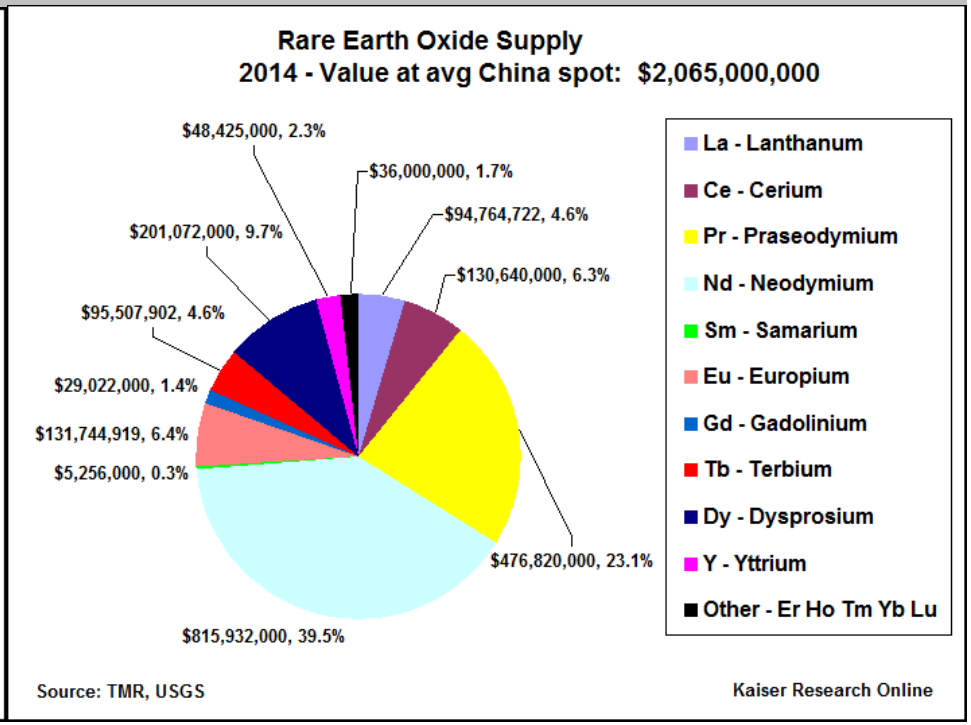

Annual Antimony Production
Production Data Source: USGS
Annual Production Value based on average annual price
2014 Value at $4.40 /lb - $1,600,000,000
2014 Output 160,000 tonnes
2014 Constant Value
Nominal Value
Contained Antimony tonnes
Value at Annual Avg Price
Billions
Others
Thailand
Morocco
Serbia
Italy
Slovakia
United States
Guatemala
Mexico
Peru
Turkey
Canada
Kyrgystan
Australia
South Africa
Tajikistan
Bolivia
Russia
Myanmar
China
Kaiser Research Online

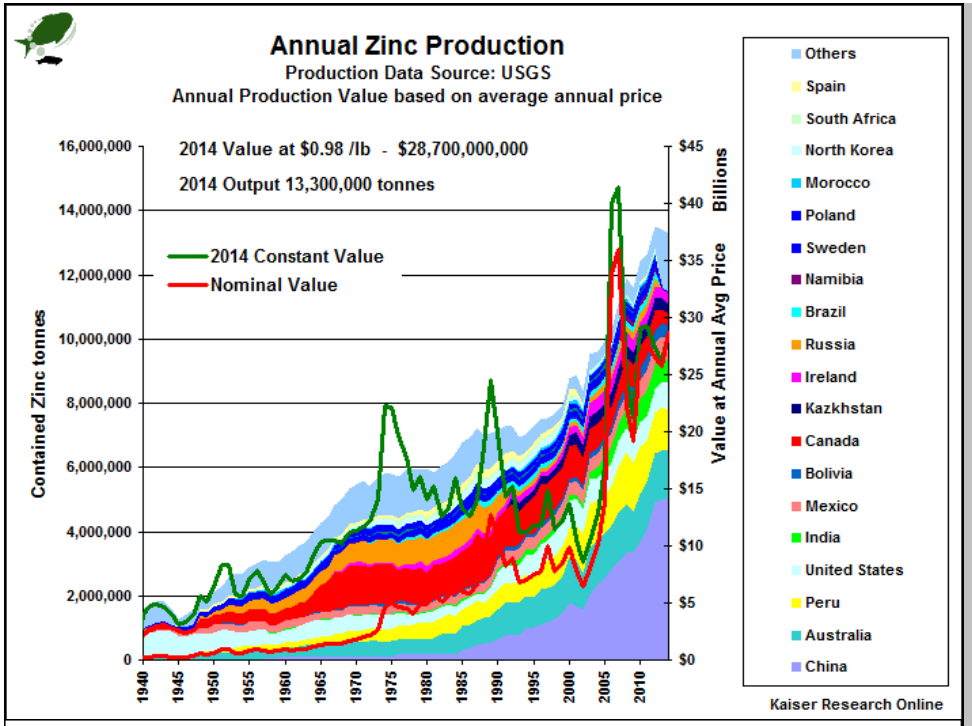

Antimony 99.65% US $/lb
$3.77 Monthly Avg
$4.65 3 Year Avg
Kaiser Research Online
May 2015

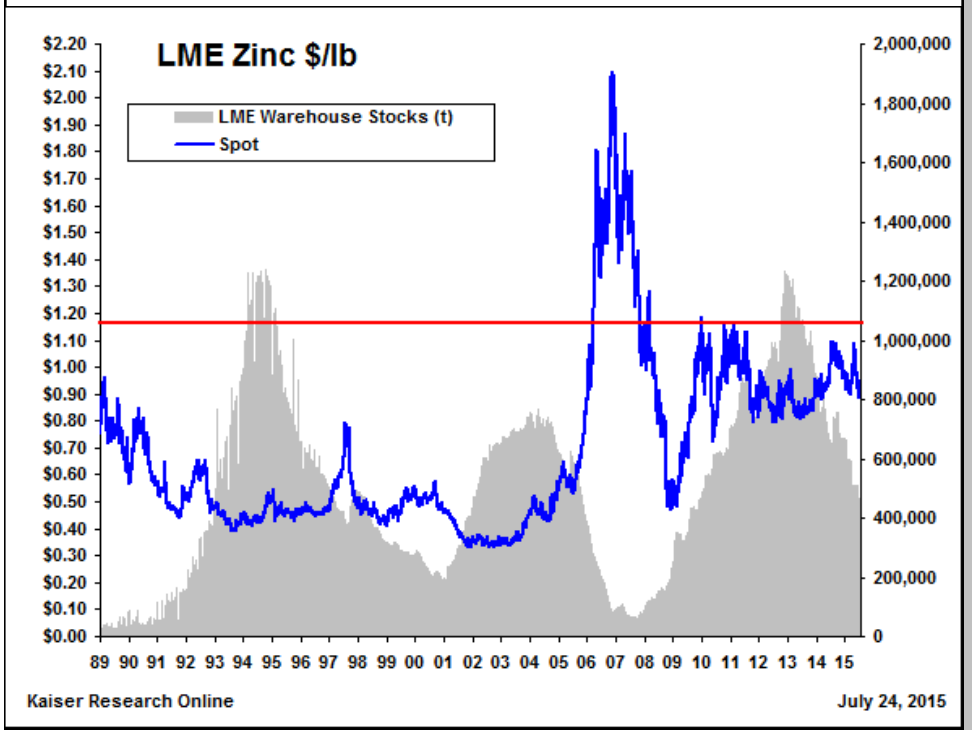

Annual Rare Earth Oxide Production
Production Data Source: USGS
Annual Production Value based on KRO supply estimates & Domestic Price
2014 Value at $18 /kg avg REO - $2,064,500,000
2014 Output 112,200 tonnes
REO tonnes
Value at Annual Avg Price
Billions
Brazil
Malaysia
Vietnam
Thailand
Russia
India
United States
Australia
China
Kaiser Research Online

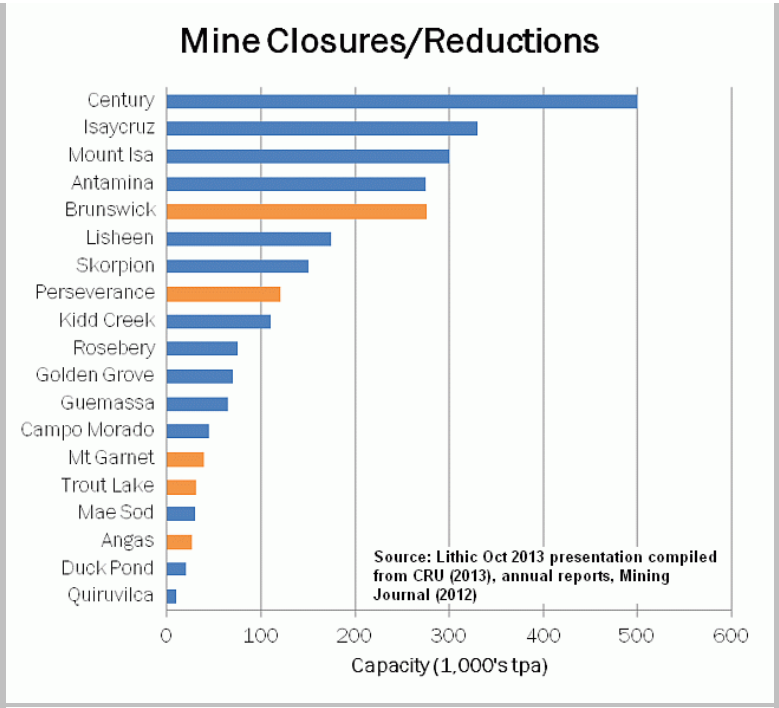

2014 Rare Earth Oxide Supply- tonnes 112,200
1,200, 1.1%
6,500, 5.8%
800, 0.7%
200, 0.2%
1,400, 1.2%
247, 0.2%
1,800, 1.6%
31,800, 28.3%
16,900, 15.1%
5,400, 4.8%
46,000, 41.0%
La - Lanthanum
Ce - Cerium
Pr - Praseodymium
Nd - Neodymium
Sm - Samarium
Eu - Europium
Gd - Gadolinium
Tb - Terbium
Dy - Dysprosium
Y - Yttrium
Other - Er Ho Tm Yb Lu
Source: TMR, USGS
Kaiser Research Online

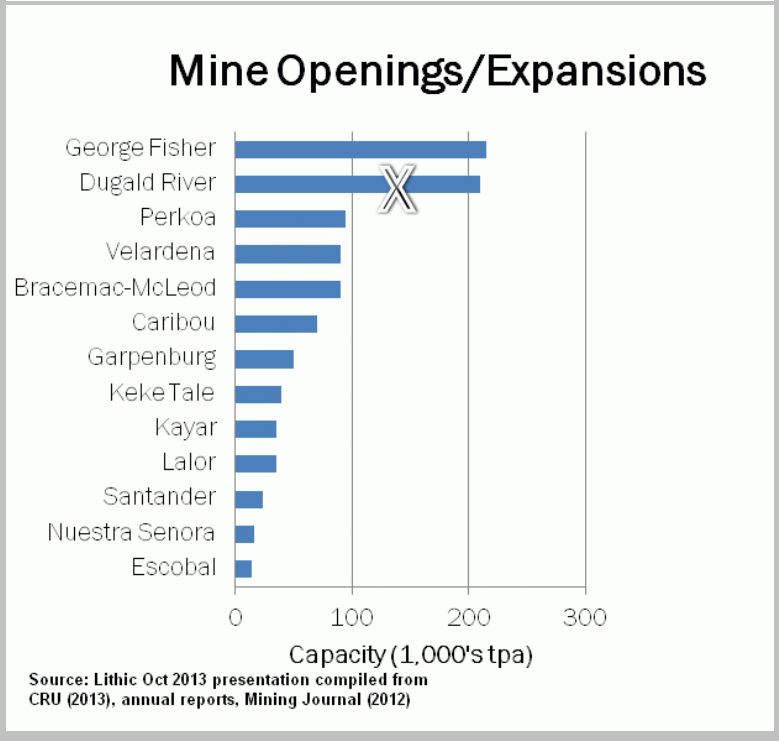

March 19, 2015
KRO Rare Earth Stock Index & REO FOB Price
Composite Index
Kaiser Rare Earth Stock Index (19 juniors) normalized to 1000 Jan 2, 2004
REO FOB Price Index (Ce La Pr Nd Sm Eu Gd Tb Dy Y) indices normalized to 1000 Apr 13, 2001


Rare Earth Oxide Supply
2014 - Value at avg China spot: $2,065,000,000
$48,425,000, 2.3%
$36,000,000, 1.7%
$94,764,722, 4.6%
$201,072,000, 9.7%
$130,640,000, 6.3%
$95,507,902, 4.6%
$29,022,000, 1.4%
$131,744,919, 6.4%
$5,256,000, 0.3%
$476,820,000, 23.1%
$815,932,000, 39.5%
La - Lanthanum
Ce - Cerium
Pr - Praseodymium
Nd - Neodymium
Sm - Samarium
Eu - Europium
Gd - Gadolinium
Tb - Terbium
Dy - Dysprosium
Y - Yttrium
Other - Er Ho Tm Yb Lu
Source: TMR, USGS
Kaiser Research Online


Annual Zinc Production
Production Data Source: USGS
Annual Production Value based on average annual price
2014 Value at $0.98 /lb - $28,700,000,000
2014 Output 13,300,000 tonnes
2014 Constant Value
Nominal Value
Contained Zinc tonnes
Billions
Value at Annual Avg Price
Others
Spain
South Africa
North Korea
Morocco
Poland
Sweden
Namibia
Brazil
Russia
Ireland
Kazkhstan
Canada
Bolivia
Mexico
India
United States
Peru
Australia
China
Kaiser Research Online


LME Zinc $/lb
LME Warehouse Stocks (t)
Spot
Kaiser Research Online
July 24, 2015


Mine Closures/Reductions
Century
Isaycruz
Mount Isa
Antamina
Brunswick
Lisheen
Skorpion
Perseverance
Kidd Creek
Rosebery
Golden Grove
Guemassa
Campo Morado
Mt Garnet
Trout Lake
Mae Sod
Angas
Duck Pond
Quiruvilca
Source: Lithic Oct 2013 presentation compiled from CRU (2013), annual reports, Mining Journal (2012)
Capacity (1,000's tpa)


Mine Openings/Expansions
George Fisher
Dugald River
Perkoa
Velardena
Bracemac-McLeod
Caribou
Garpenburg
Keke Tale
Kayar
Lalor
Santander
Nuestra Senora
Escobal
Capacity (1,000's tpa)
Source: Lithic Oct 2013 presentation compiled from CRU (2013), annual reports, Mining Journal (2012)

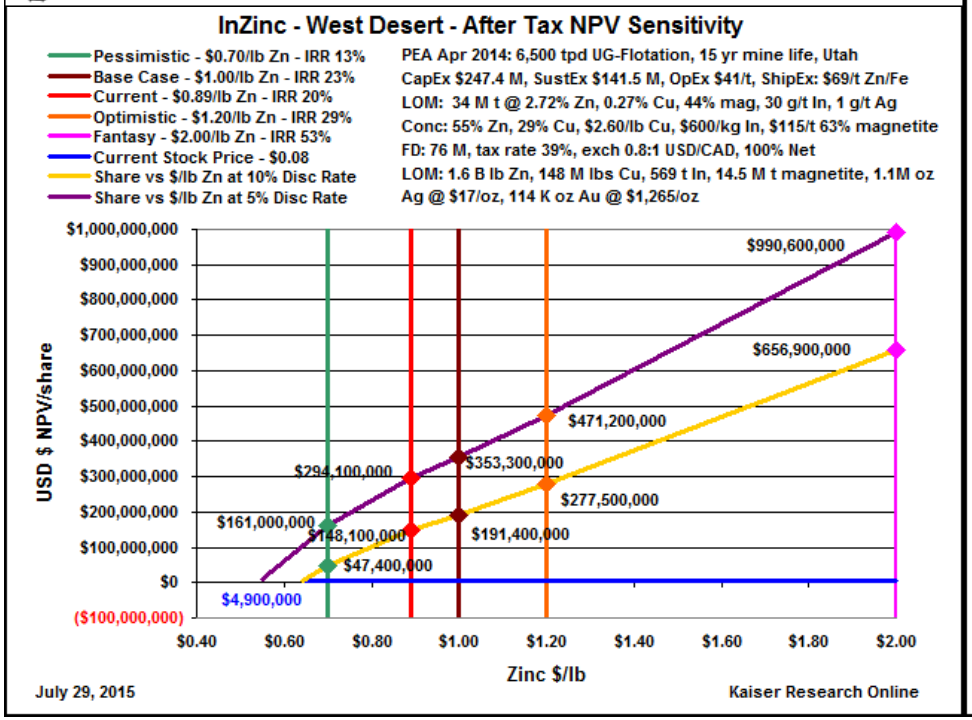
Project Resource Estimate - Crypto - sulphide

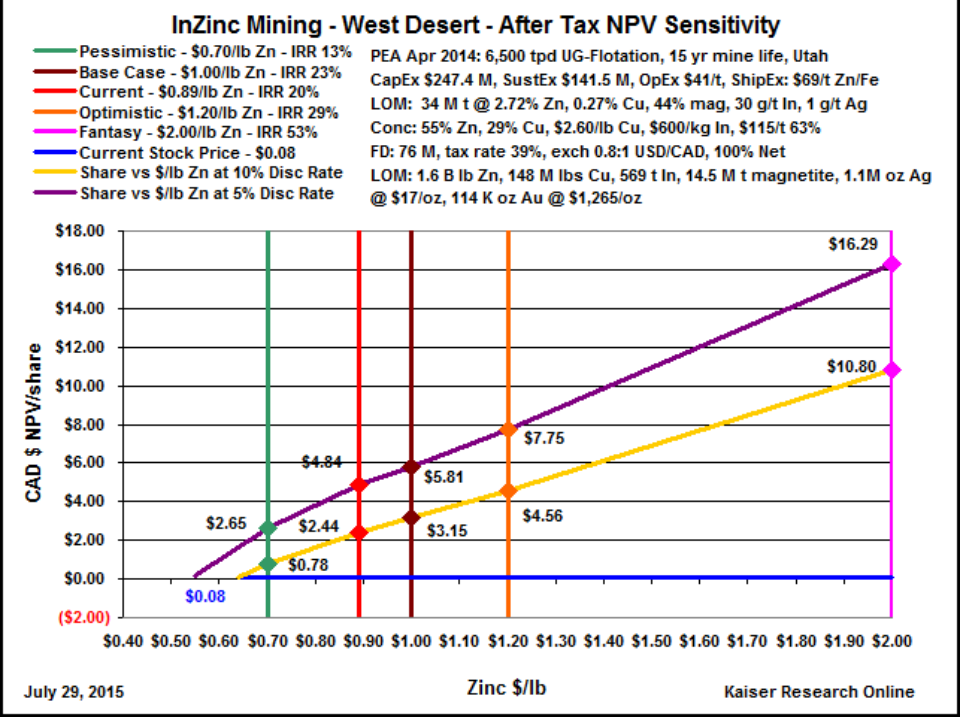
Nov 19, 2009	NI 43-101	Steve Ristorcelli, Mine Development Associates	Cutoff: 3.0% Zn eq.

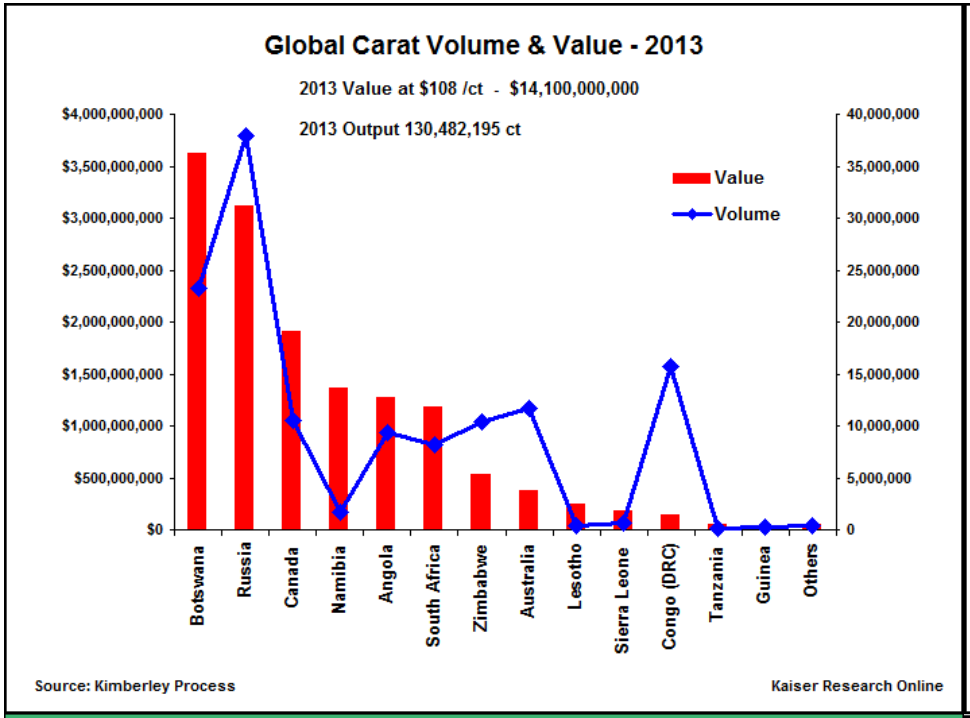
Resource Category	Tonnage	Total Rock Value	Metal	Grade	Recovery	Contained Metal	% of GMV
Indicated Resources	5,800,000	$145/t	Zinc	4.440%	100.0%	567,728,623 lb	62%
			Copper	0.309%	100.0%	39,510,843 lb	15%
			Indium	48.80 g/t	100.0%	623,990 lb	22%
Inferred Mineral Resources	13,805,000	$150/t	Zinc	4.840%	100.0%	1,473,030,024 lb	66%
			Copper	0.372%	100.0%	113,216,357 lb	18%
			Indium	37.40 g/t	100.0%	1,138,250 lb	17%
All Categories Spot	**19,605,000**	**$148/t**	**Zinc**	**4.722%**		**2,040,758,647 lb**	**65%**
			Copper	**0.353%**		**152,727,201 lb**	**17%**
			Indium	**40.77 g/t**		**1,762,240 lb**	**18%**
All Categories LTA	**19,605,000**	**$148/t**	**Zinc**	**4.722%**		**2,040,758,647 lb**	**65%**
			Copper	**0.353%**		**152,727,201 lb**	**19%**
			Indium	**40.77 g/t**		**1,762,240 lb**	**16%**

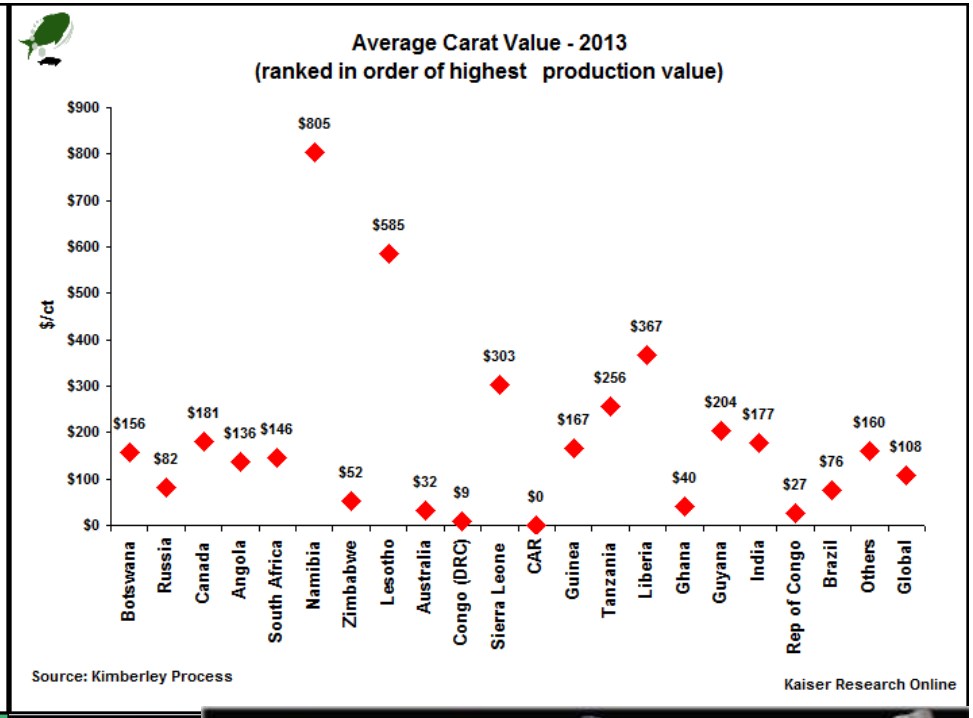
Spot Gross Metal Value	Market Cap as % of Net GMV	Spot Prices Used
$2,907,995,616	0.3%	Zinc $0.92/lb, Copper $3.26/lb, Indium $302.21/lb

LTA Gross Metal Value	Market Cap as % of Net GMV	LTA Prices Used
$2,906,694,585	0.3%	3 Year Average: Zinc $0.92/lb, Copper $3.66/lb, Indium $268.30/lb






Global Carat Volume & Value - 2013
2013 Value at $108 /ct - $14,100,000,000
2013 Output 130,482,195 ct
Value
Volume
$4,000,000,000
$3,500,000,000
$3,000,000,000
$2,500,000,000
$2,000,000,000
$1,500,000,000
$1,000,000,000
$500,000,000
$0
40,000,000
35,000,000
30,000,000
25,000,000
20,000,000
15,000,000
10,000,000
5,000,000
0
Botswana
Russia
Canada
Namibia
Angola
South Africa
Zimbabwe
Australia
Lesotho
Sierra Leone
Congo (DRC)
Tanzania
Guinea
Others
Source: Kimberley Process
Kaiser Research Online


Average Carat Value - 2013
(ranked in order of highest production value)
$/ct
$900
$800
$700
$600
$500
$400
$300
$200
$100
$0
$156
$82
$181
$136
$146
$805
$52
$585
$32
$9
$303
$0
$167
$256
$367
$40
$204
$177
$27
$76
$160
$108
Botswana
Russia
Canada
Angola
South Africa
Namibia
Zimbabwe
Lesotho
Australia
Congo (DRC)
Sierra Leone
CAR
Guinea
Tanzania
Liberia
Ghana
Guyana
India
Rep of Congo
Brazil
Others
Global
Source: Kimberley Process
Kaiser Research Online

Peregrine Diamonds Ltd
11/1/2011 TO 7/28/2015
2012
2013
2014
2015
$1.10
$1.00
$0.90
$0.80
$0.70
$0.60
$0.50
$0.40
$0.30
$0.20
$0.10
Volume
8,000,000
6,000,000
4,000,000
2,000,000
Values
$5,000,000
$2,500,000
Issued: 282,671,098
Diluted: 303,339,598
High: $1.08 on 11/2/2011
Low: $0.14 on 1/19/2015
Max Volume: 6,812,600 on 2/28/2014
Max Value: $3,065,670 on 2/28/2014
KaiserResearch.com
PGD - TSX - Daily - CAD $0.19
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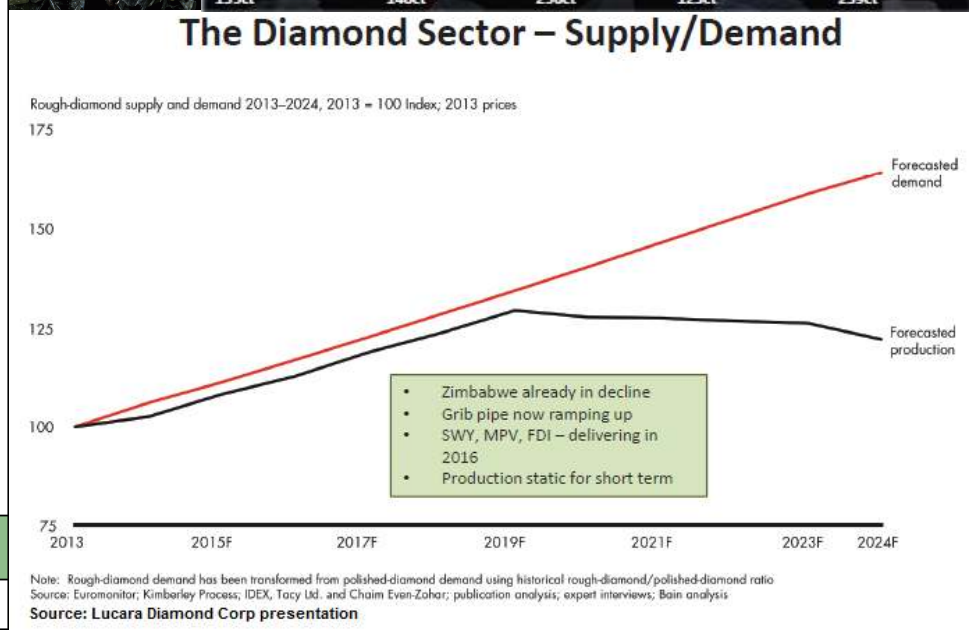
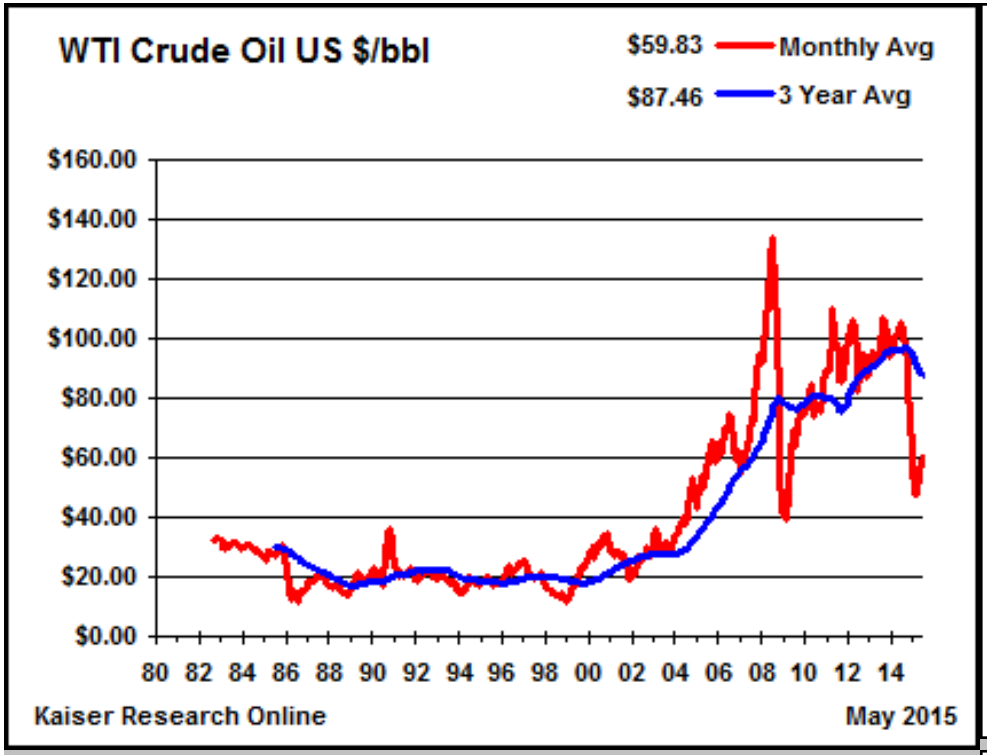
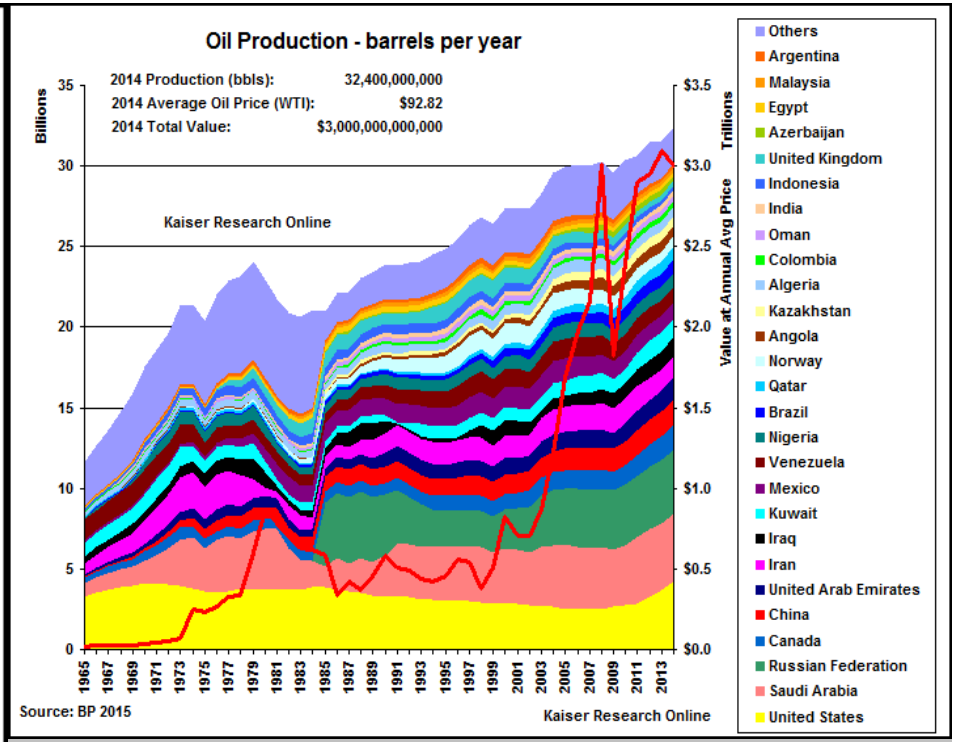
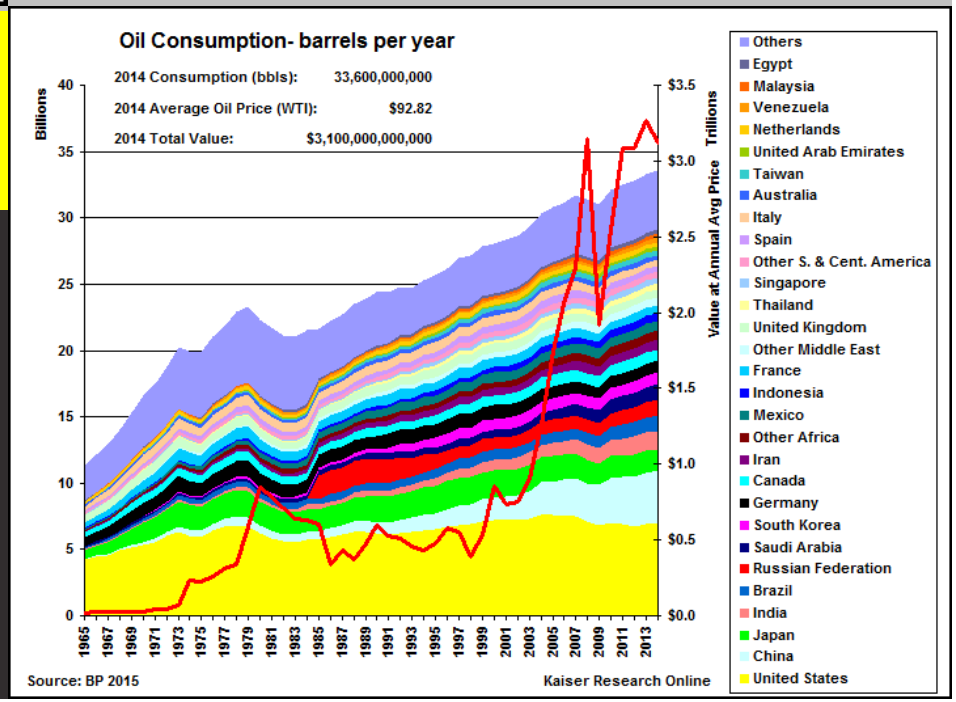
135ct
140ct
256ct
123ct
239ct


The Diamond Sector – Supply/Demand
Rough-diamond supply and demand 2013–2024, 2013 = 100 Index; 2013 prices
175
150
125
100
75
2013
2015F
2017F
2019F
2021F
2023F
2024F
Forecasted demand
Forecasted production
Zimbabwe already in decline
Grib pipe now ramping up
SWY, MPV, FDI – delivering in 2016
Production static for short term
Note: Rough-diamond demand has been transformed from polished-diamond demand using historical rough-diamond/polished-diamond ratio
Source: Euromonitor; Kimberley Process; IDEX, Tacy Ltd. and Chaim Even-Zohar; publication analysis; expert interviews; Bain analysis
Source: Lucara Diamond Corp presentation

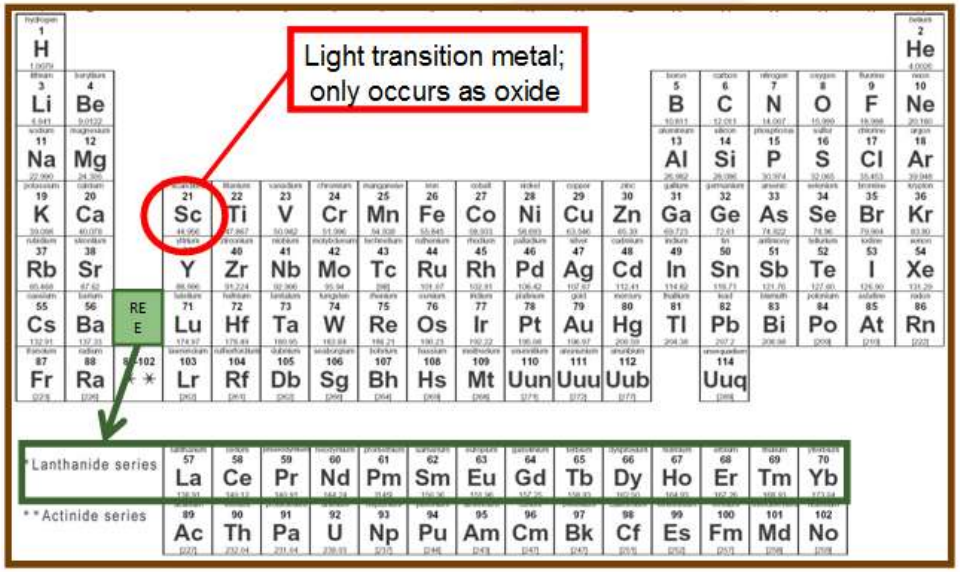


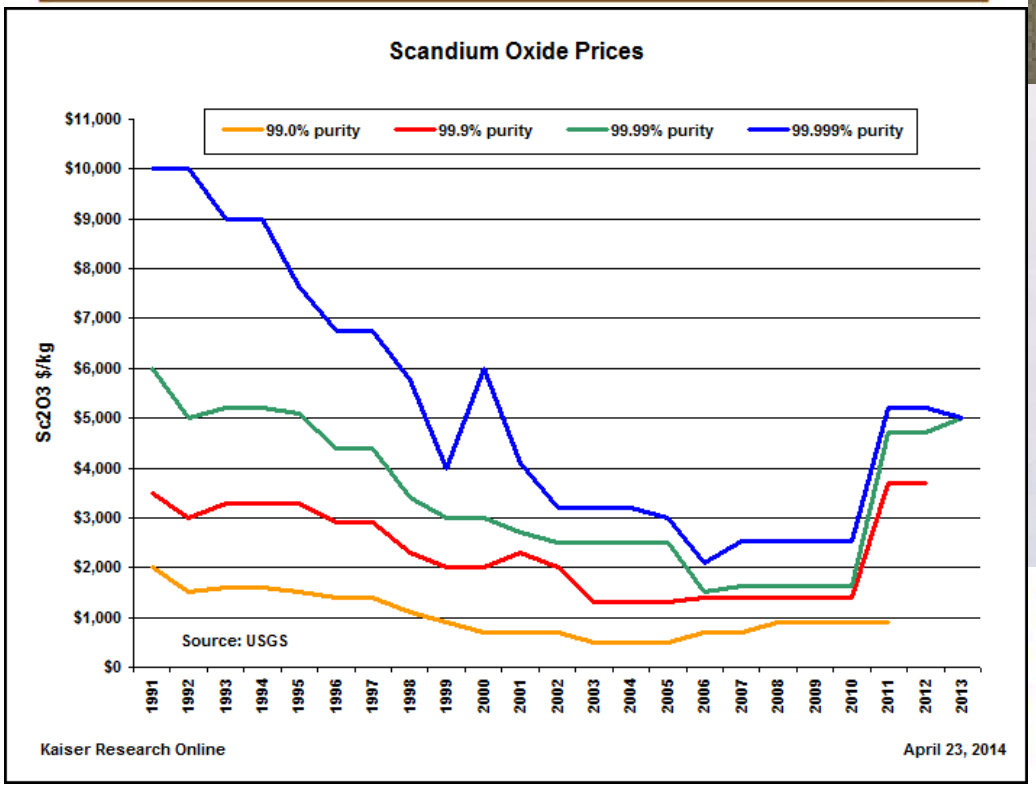


Energy Efficiency is Apolitical



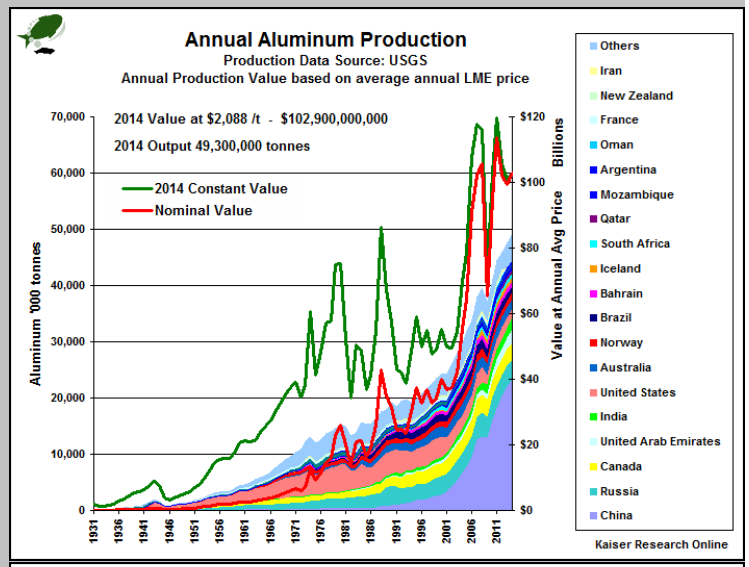
Scandium often considered a REE (as is Yttrium) – technically Is not

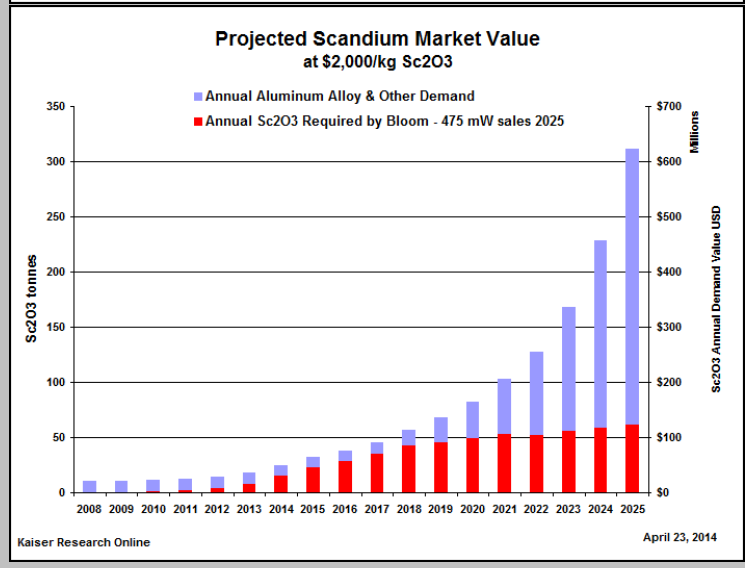




Scandium: Aluminum's Perfect Alloy Spouse

- Strengthens aluminum – allowing weight reduction without safety sacrifice
- Does not reduce conductivity of aluminum – stronger high tension wires can have longer spans between support towers without wheeling losses
- Weld joints are as strong as the alloy material – important for high stress applications such as airplane struts and skins
- Amenable to 3D printing with AlSc powders
- Corrosion resistant – naval applications
- Raises the melt point of aluminum – allows weight saving applications such as car brake rotors

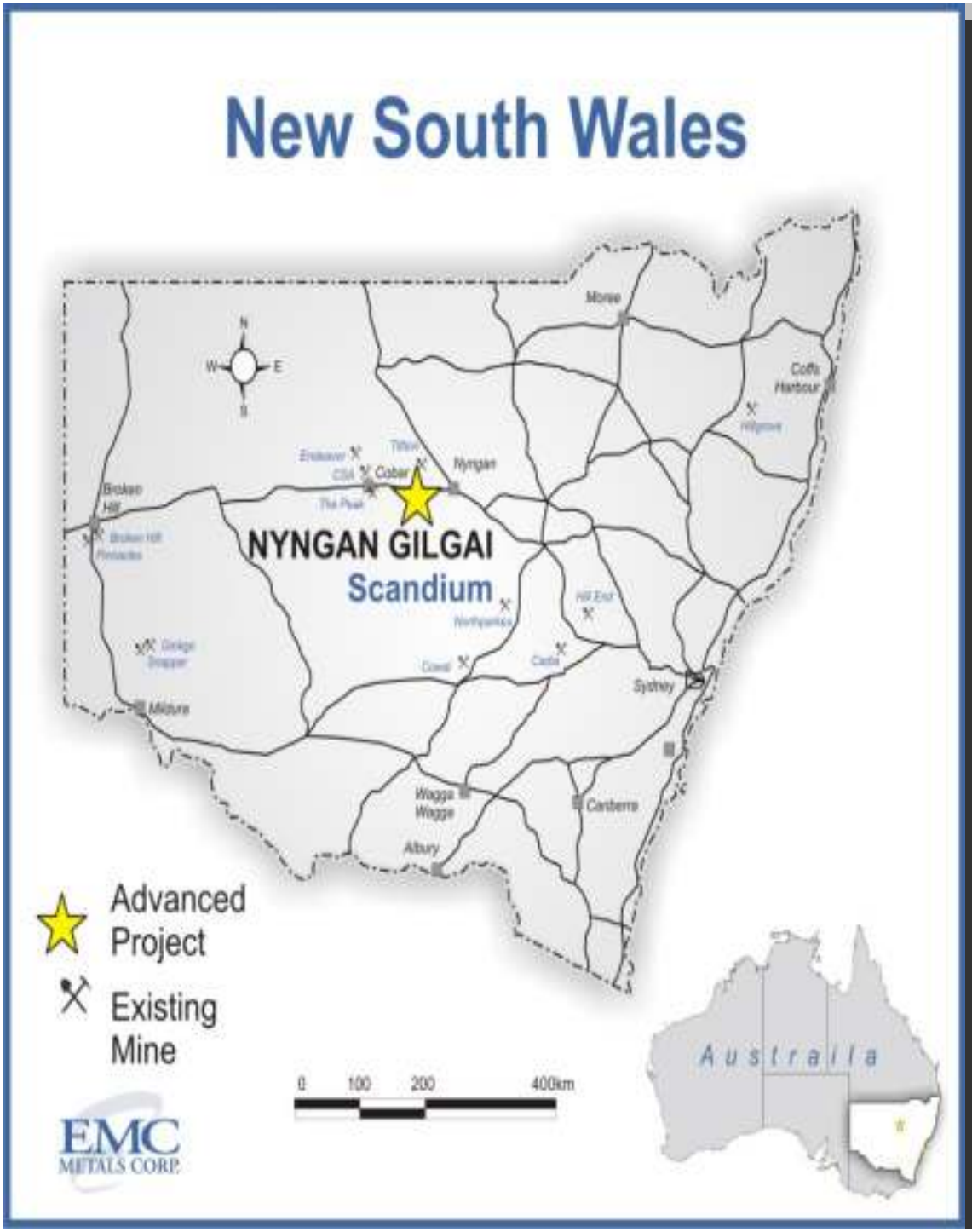




Could scandium do for the $100 billion aluminum market what niobium did for steel if there were a primary, scalable supply?

Aluminum Alloy Market

If you build the supply the demand will come!



During the past 50 years hundreds of patents involving scandium have been filed. To this day the holders and the media lament scandium's scarcity.

During the last 6 years major enriched scandium deposits have been found by juniors that offer primary, scalable supply potential.

Almost nobody in the financial sector gets what a game changer this is about to become.

If the first thing your advisor says is that the market is only 10-15 tpa, you are not working with the sharpest tool in the shed.

Scandium International Mining Corp
11/1/2011 TO 7/28/2015
Event
Volume
Values
Issued: 198,604,790
Diluted: 213,414,790
High: $0.18 on 2/21/2012
Low: $0.02 on 5/16/2013
Max Volume: 8,061,100 on 6/25/2014
Max Value: $987,485 on 6/25/2014
KaiserResearch.com
SCY - TSX - Daily - CAD $0.10
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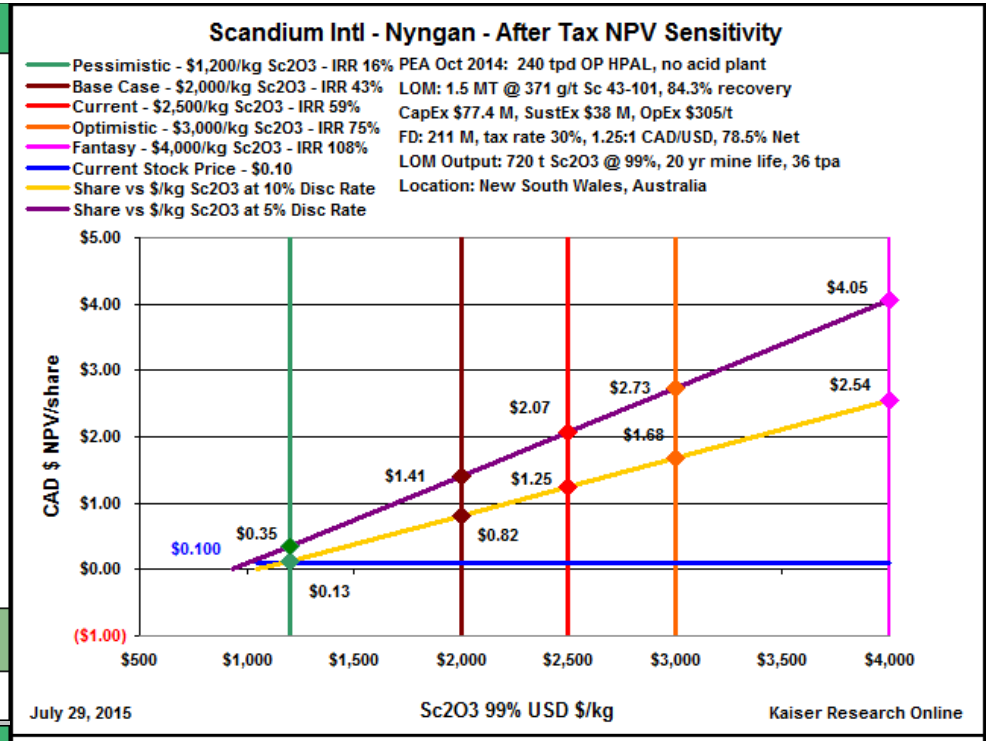
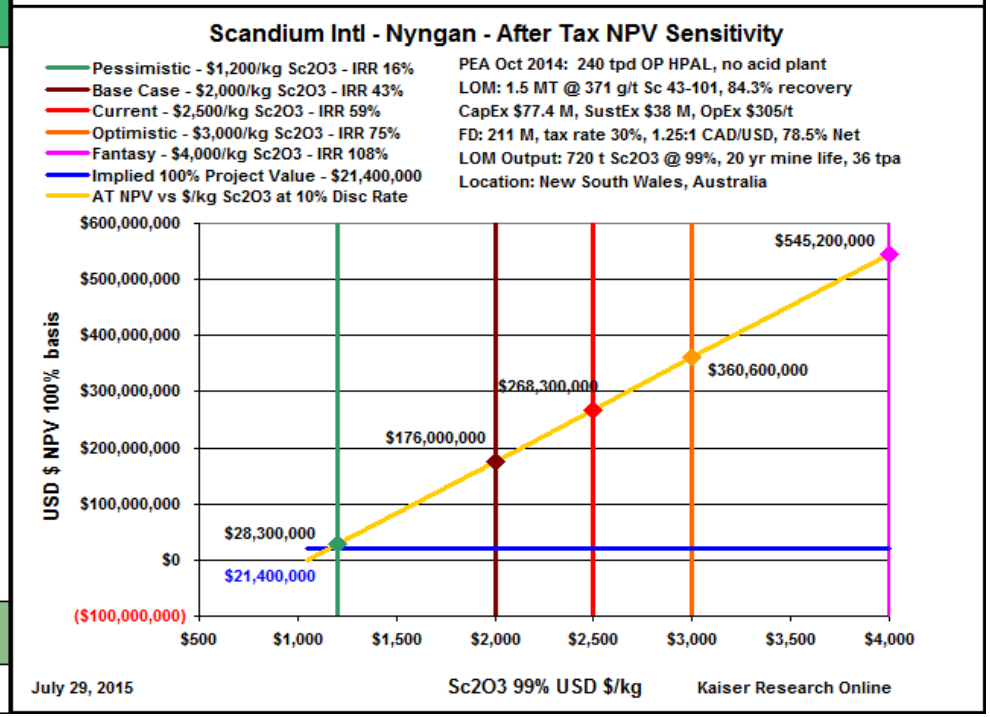

Scandium Intl - Nyngan - After Tax NPV Sensitivity
Pessimistic - $1,200/kg Sc2O3 - IRR 16%
Base Case - $2,000/kg Sc2O3 - IRR 43%
Current - $2,500/kg Sc2O3 - IRR 59%
Optimistic - $3,000/kg Sc2O3 - IRR 75%
Fantasy - $4,000/kg Sc2O3 - IRR 108%
Current Stock Price - $0.10
Share vs $/kg Sc2O3 at 10% Disc Rate
Share vs $/kg Sc2O3 at 5% Disc Rate
PEA Oct 2014: 240 tpd OP HPAL, no acid plant
LOM: 1.5 MT @ 371 g/t Sc 43-101, 84.3% recovery
CapEx $77.4 M, SustEx $38 M, OpEx $305/t
FD: 211 M, tax rate 30%, 1.25:1 CAD/USD, 78.5% Net
LOM Output: 720 t Sc2O3 @ 99%, 20 yr mine life, 36 tpa
Location: New South Wales, Australia
CAD $ NPV/share
$4.05
$2.73
$2.54
$2.07
$1.68
$1.41
$1.25
$0.35
$0.82
$0.100
$0.13
July 29, 2015
Sc2O3 99% USD $/kg
Kaiser Research Online

Clean TeQ Holdings Ltd
11/1/2011 TO 7/28/2015
Event
Volume
Values
Issued: 300,098,454
Diluted: 354,489,103
High: $0.30 on 5/25/2015
Low: $0.03 on 1/16/2012
Max Volume: 10,871,500 on 3/11/2015
Max Value: $2,420,404 on 5/25/2015
KaiserResearch.com
CLQ - - Daily - AUD $0.19
Copyright 2015 Kaiser Research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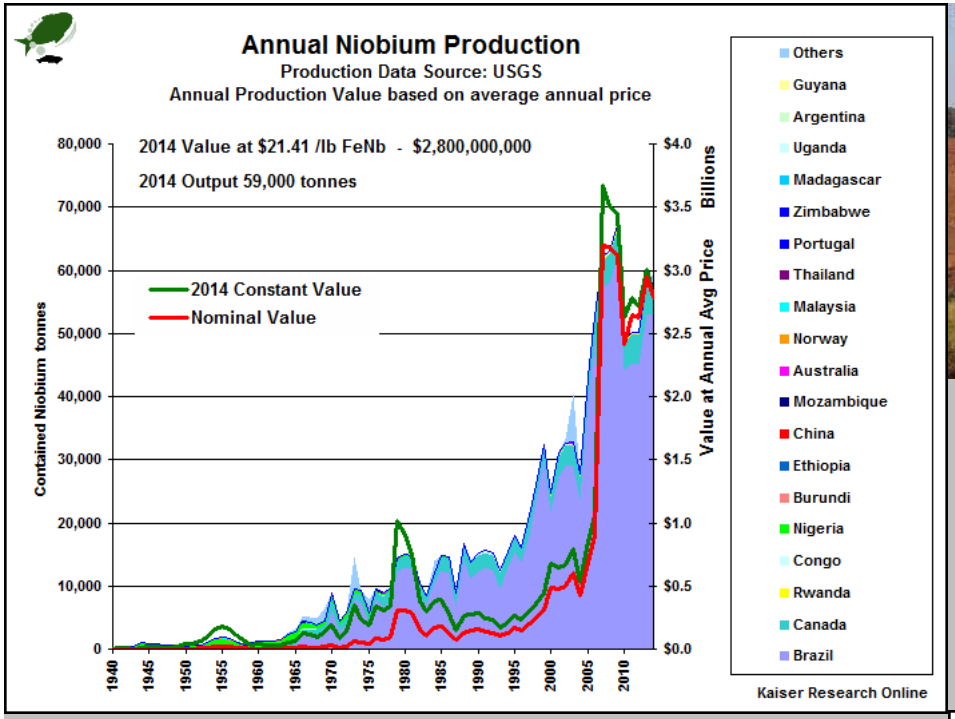
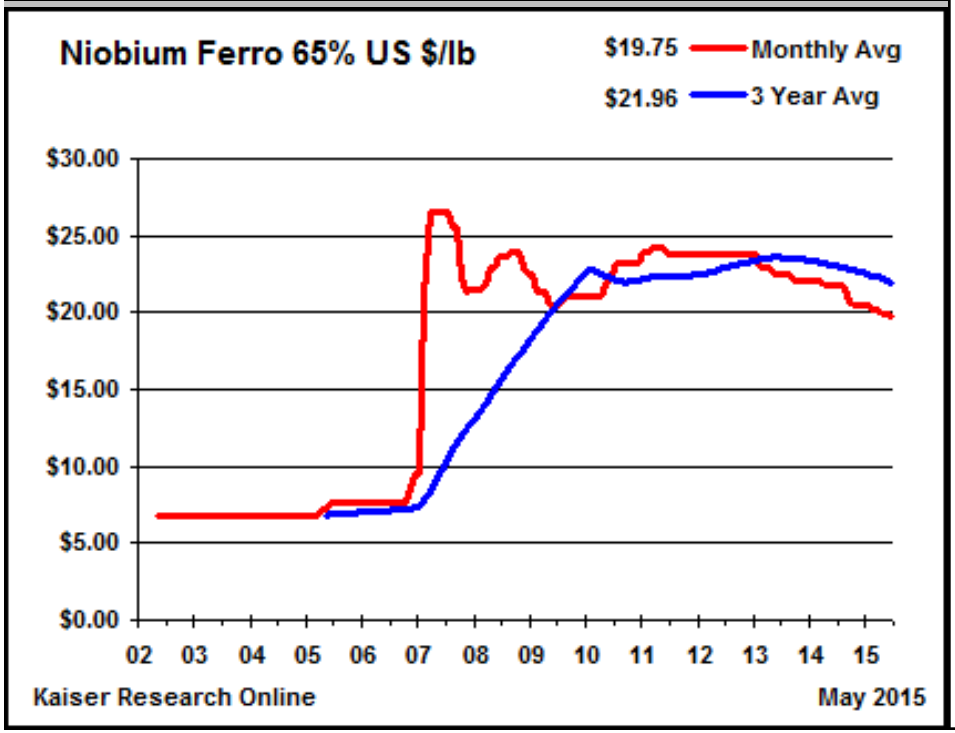
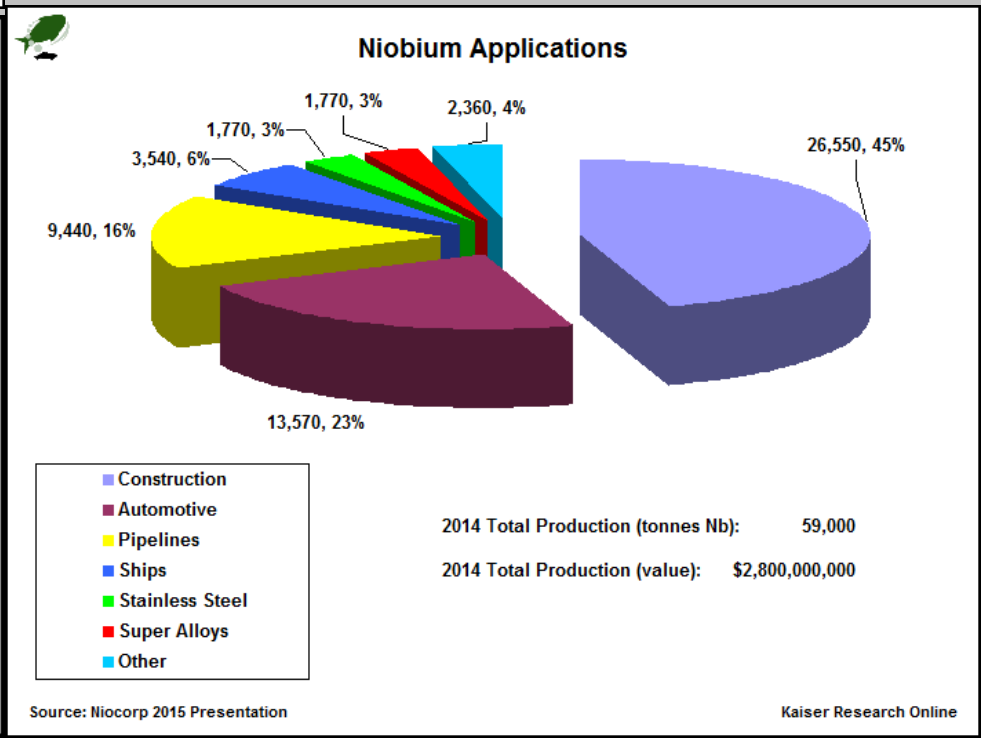
Current - $2,500/kg Sc2O3 - IRR 59%
Optimistic - $3,000/kg Sc2O3 - IRR 75%
Fantasy - $4,000/kg Sc2O3 - IRR 108%
Implied 100% Project Value - $21,400,000
AT NPV vs $/kg Sc2O3 at 10% Disc Rate
PEA Oct 2014: 240 tpd OP HPAL, no acid plant
LOM: 1.5 MT @ 371 g/t Sc 43-101, 84.3% recovery
CapEx $77.4 M, SustEx $38 M, OpEx $305/t
FD: 211 M, tax rate 30%, 1.25:1 CAD/USD, 78.5% Net
LOM Output: 720 t Sc2O3 @ 99%, 20 yr mine life, 36 tpa
Location: New South Wales, Australia
USD $ NPV 100% basis
$545,200,000
$360,600,000
$268,300,000
$176,000,000
$28,300,000
$21,400,000
July 29, 2015
Sc2O3 99% USD $/kg
Kaiser Research Online



The story of what Araxa helped niobium do for the steel industry. If you provide primary supply, the demand will come.





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