Canadian Investor Conference Toronto 2014

Toronto, Canada

September 25, 2014

Presented by John Kaiser

Escaping the Resource Sector Swamp

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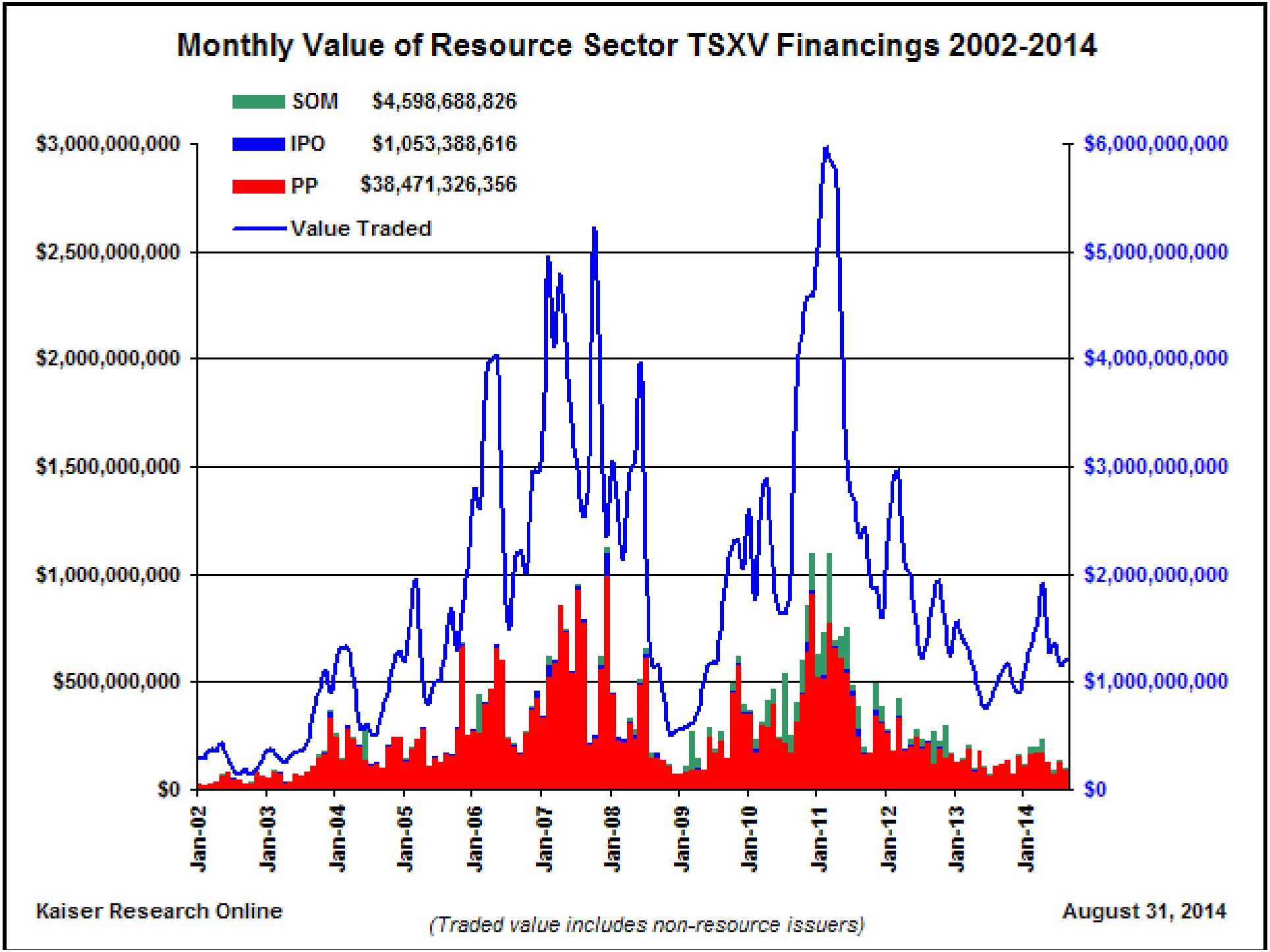
Monthly Value of Resource Sector TSXV Financings 2002-2014
SOM $4,598,688,826
IPO $1,053,388,616
PP $38,471,326,356
Value Traded
$3,000,000,000
$2,500,000,000
$2,000,000,000
$1,500,000,000
$1,000,000,000
$500,000,000
$0
$6,000,000,000
$5,000,000,000
$4,000,000,000
$3,000,000,000
$2,000,000,000
$1,000,000,000
$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
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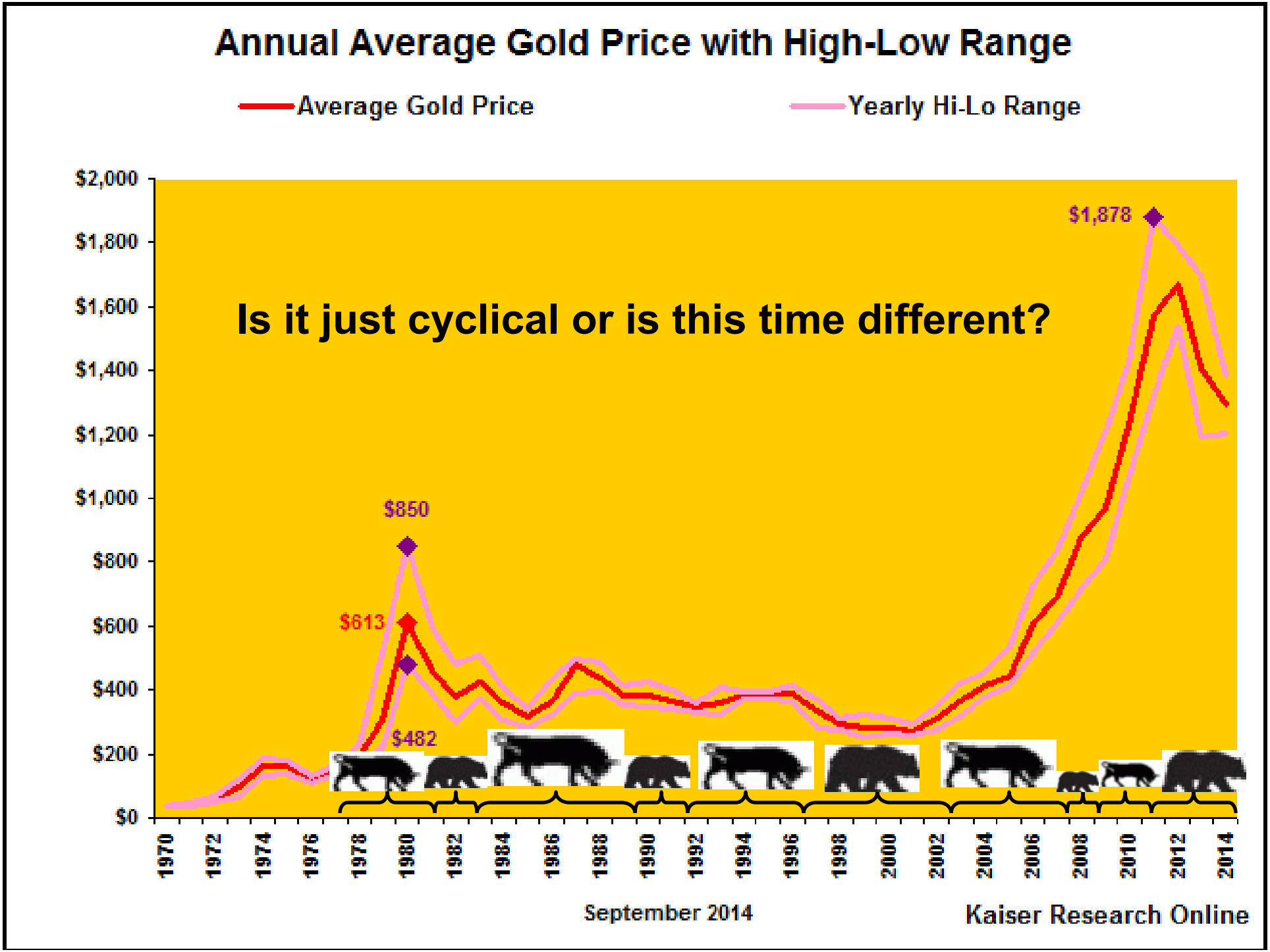
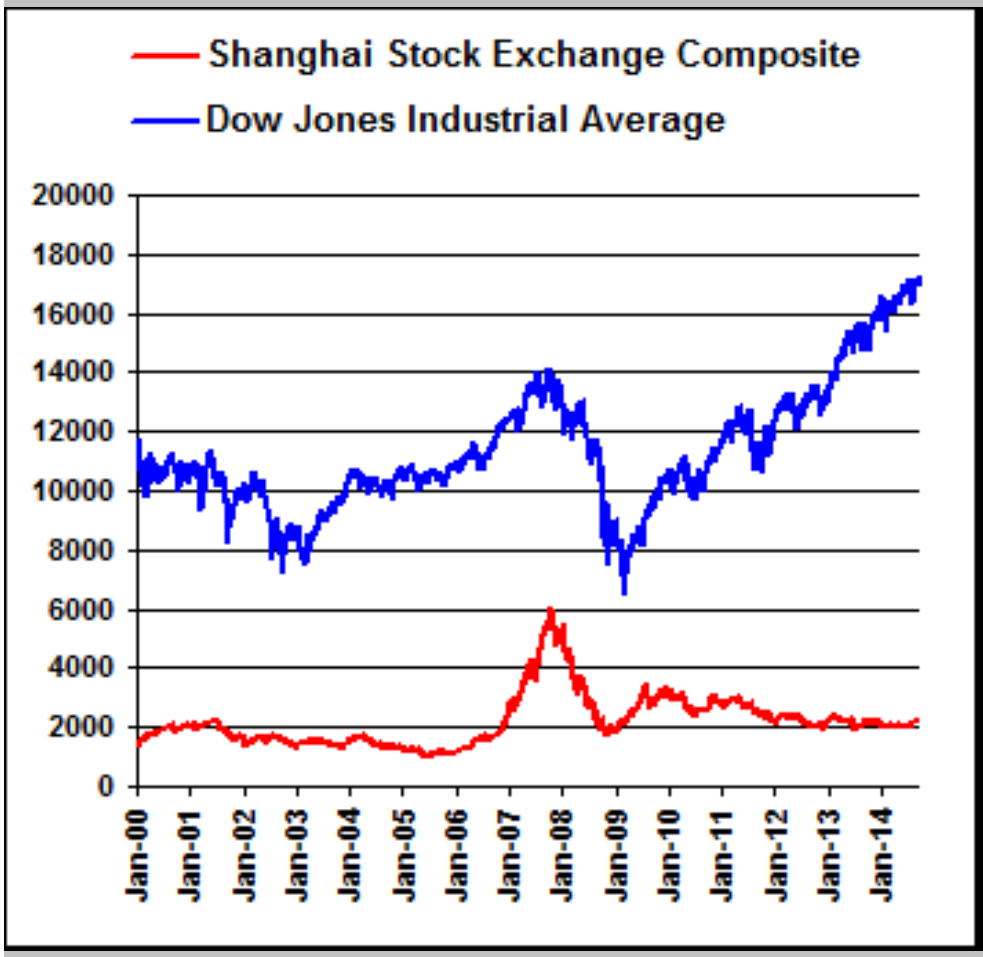
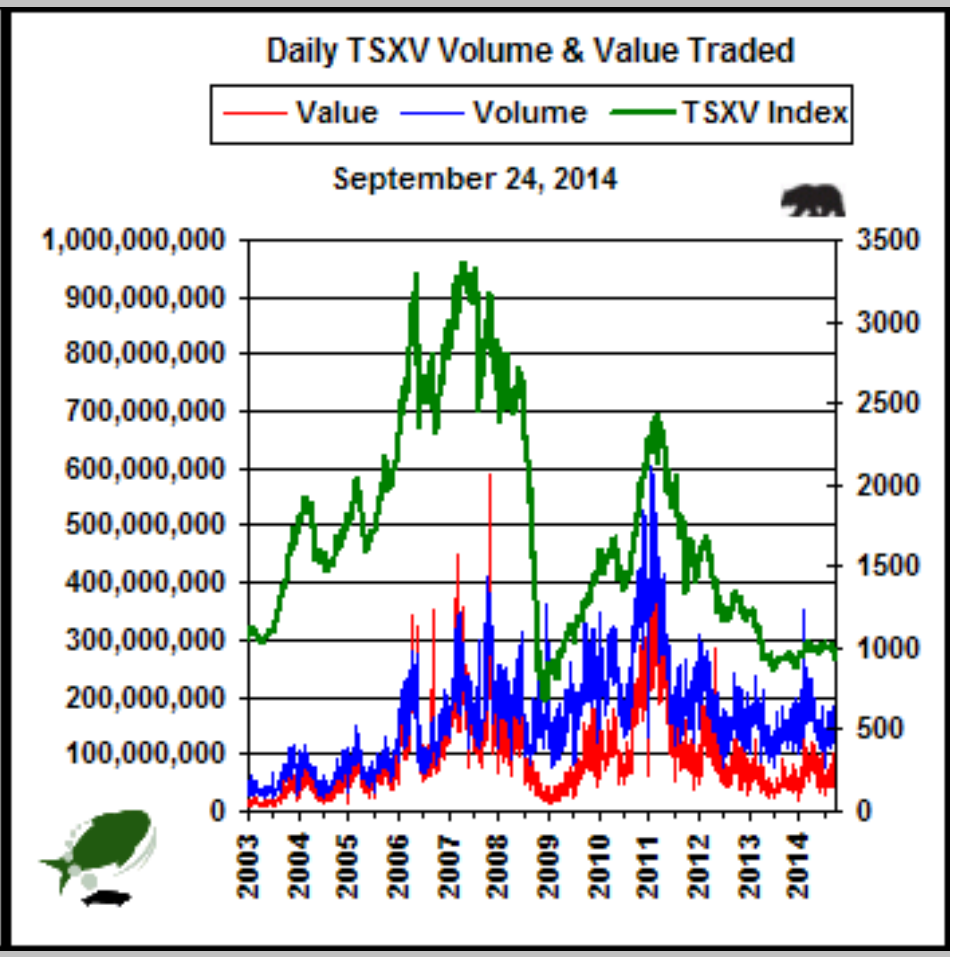
(Traded value includes non-resource issuers)
August 31, 2014


Annual Average Gold Price with High-Low Range
Average Gold Price
Yearly Hi-Lo Range
$2,000
$1,800
$1,600
$1,400
$1,200
$1,000
$800
$600
$400
$200
$0
Is it just cyclical or is this time different?
$1,878
$850
$613
$482
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
September 2014
Kaiser Research Online

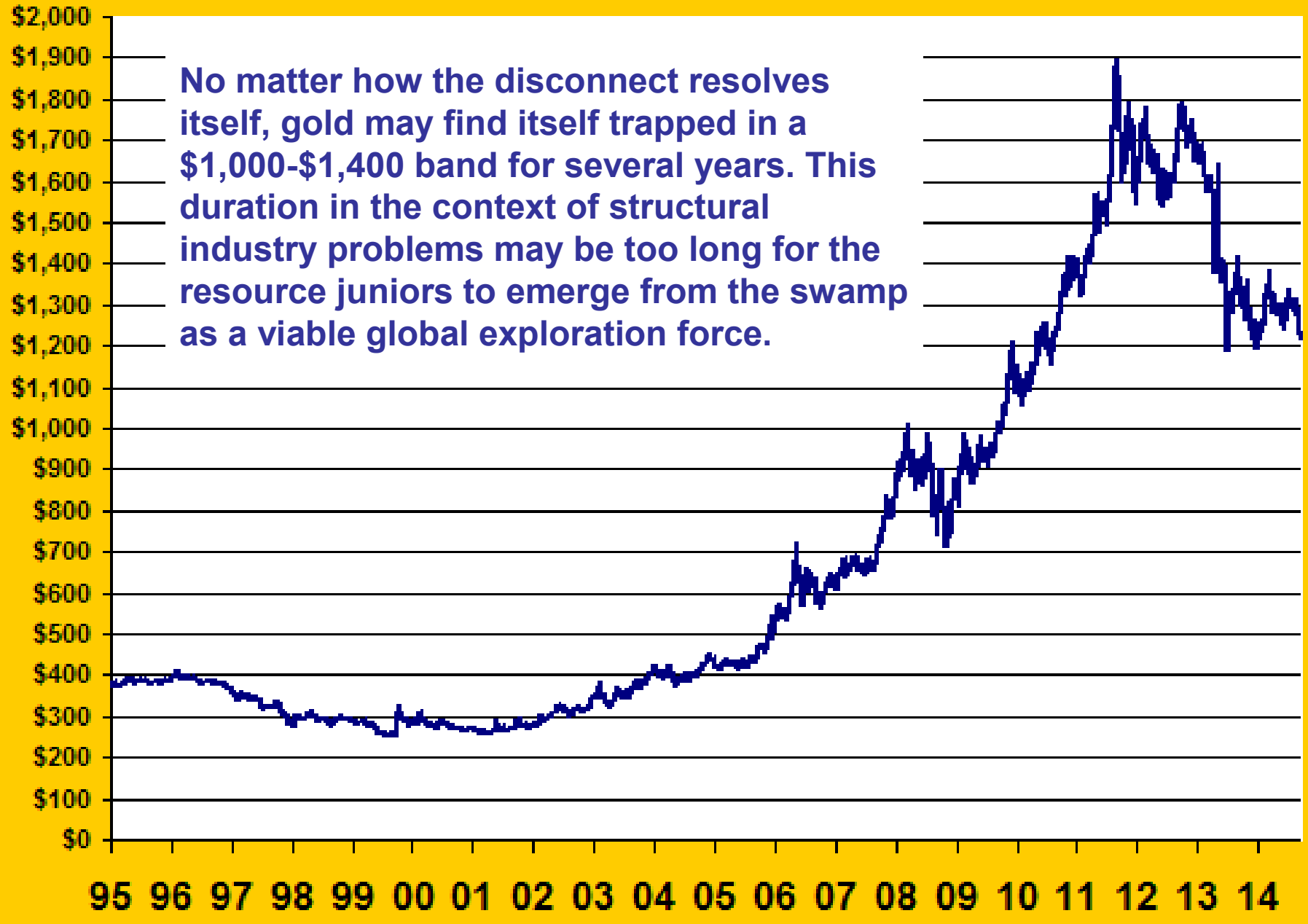
Which of these Indices reflect Economic Reality?



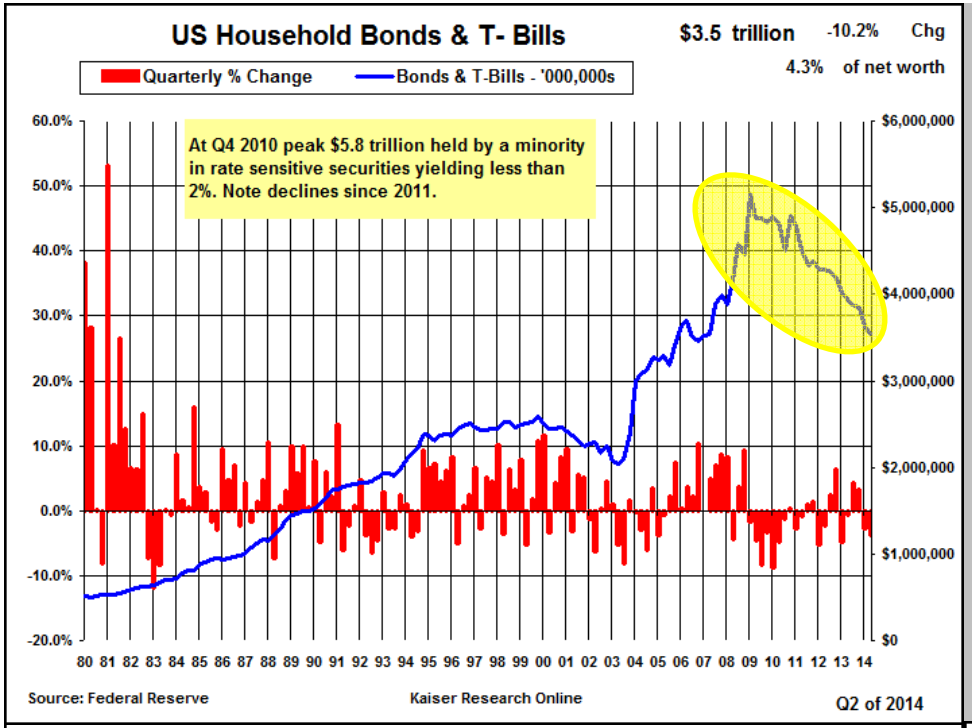


The disconnect between the fundamental weakness of the global economy and the performance of US equity markets has turned the resource sector into a swamp.

Gold $/oz (London PM Fix)

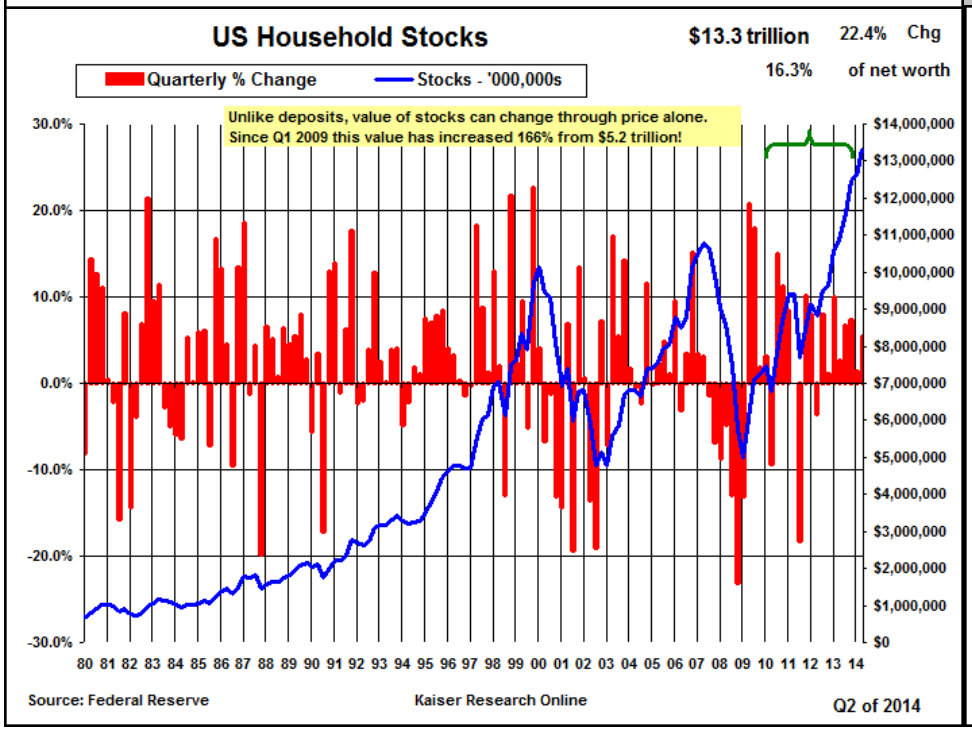


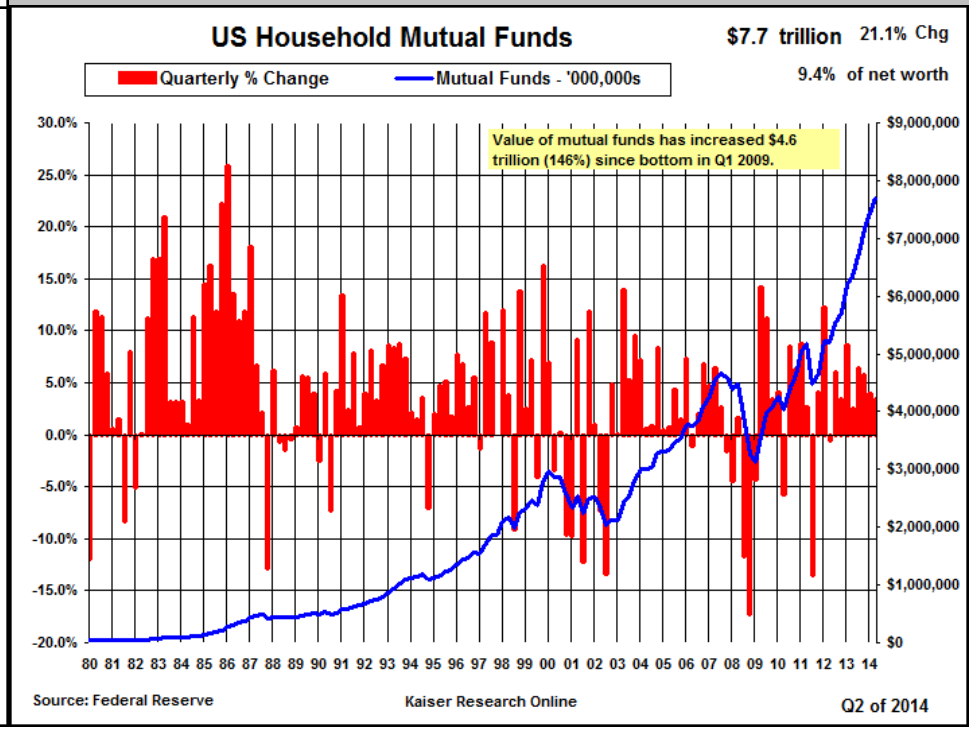
No matter how the disconnect resolves itself, gold may find itself trapped in a $1,000-$1,400 band for several years. This duration in the context of structural industry problems may be too long for the resource juniors to emerge from the swamp as a viable global exploration force.

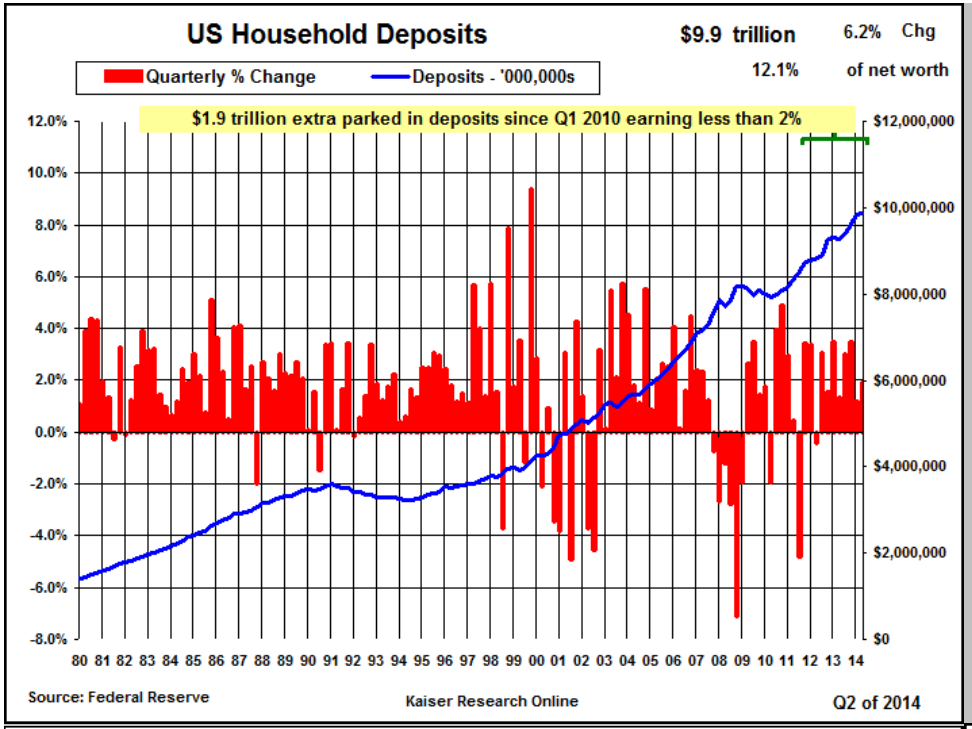


Quantitative Easing feeds bond bull market which feeds equity markets

Who has sold their near bonds to buy stocks & mutual funds?

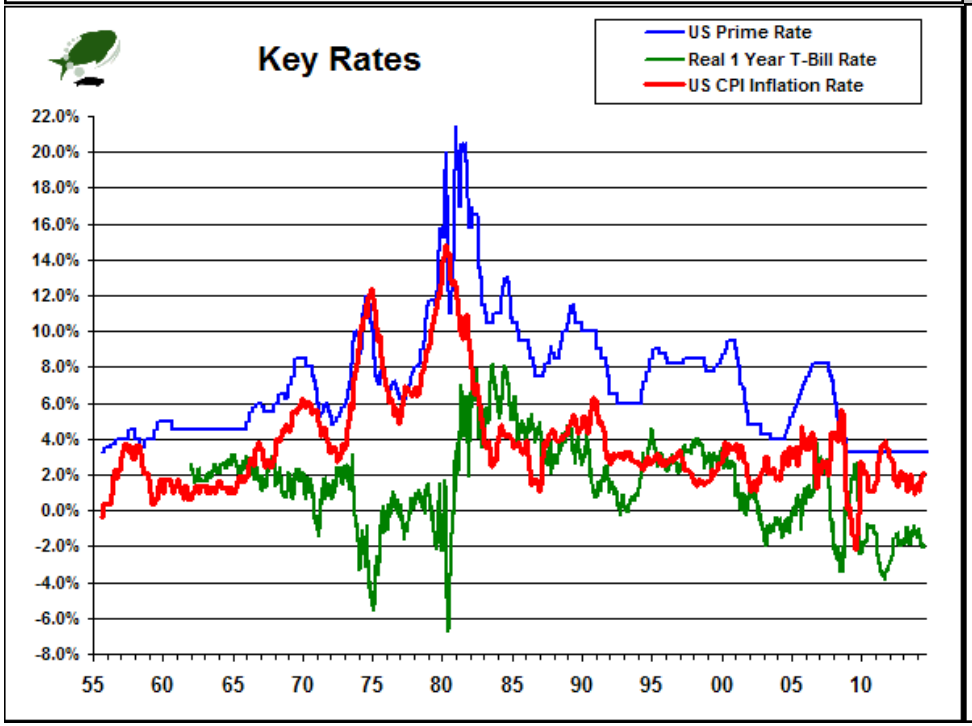


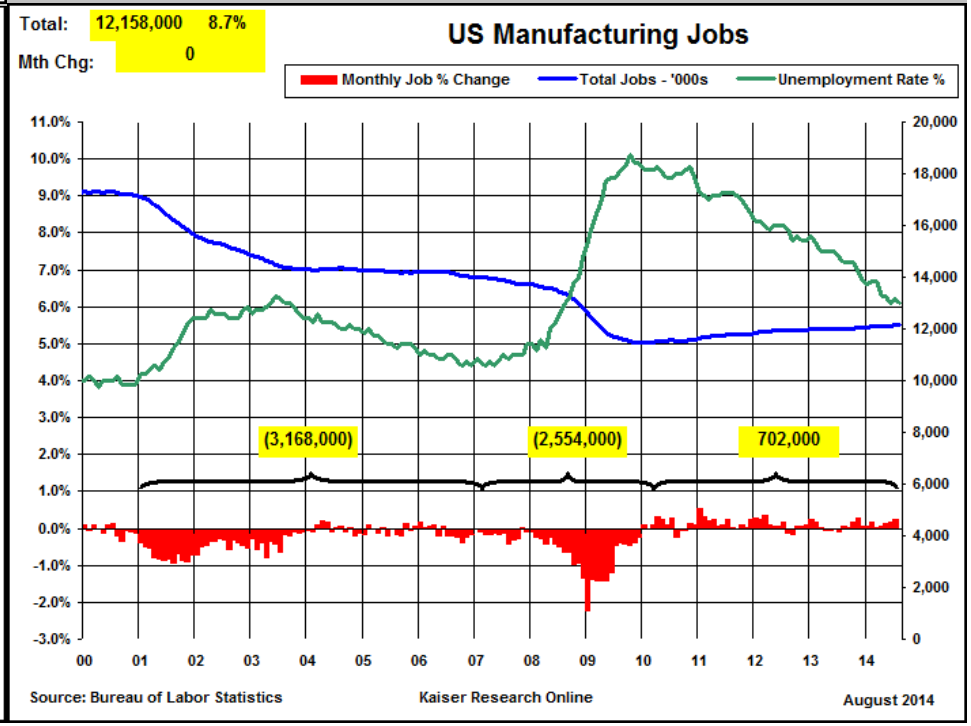


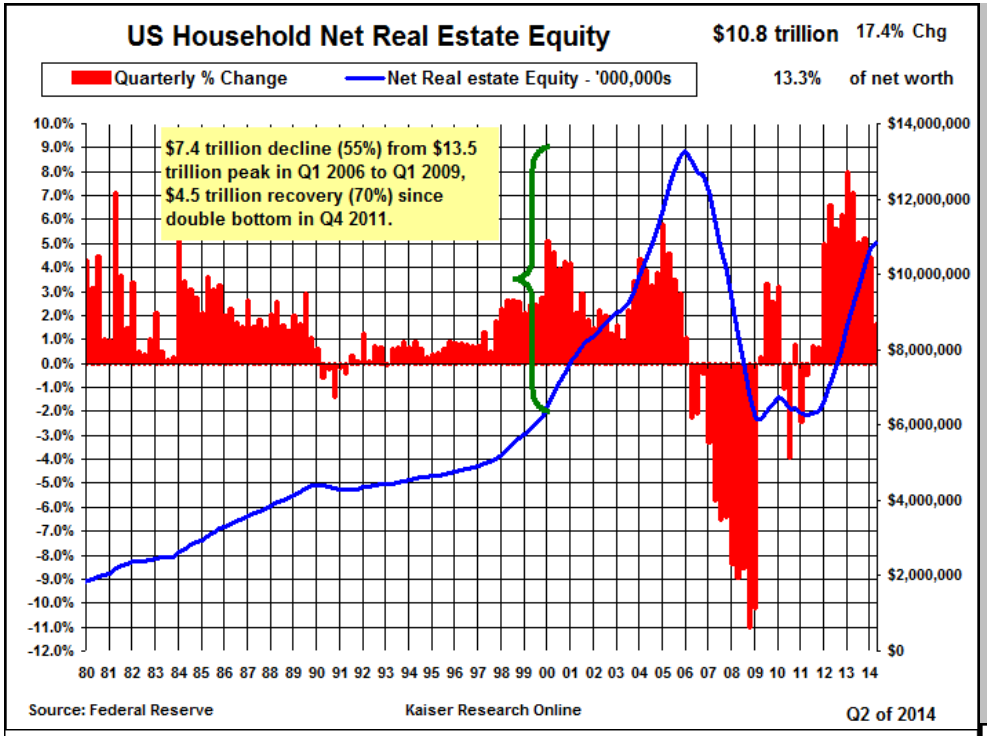


Despite very low inflation the low interest rates result in negative to near zero real rates of return to depositors.

Who keeps their money in bank deposits & has seen little wage growth thanks to slow employment growth?

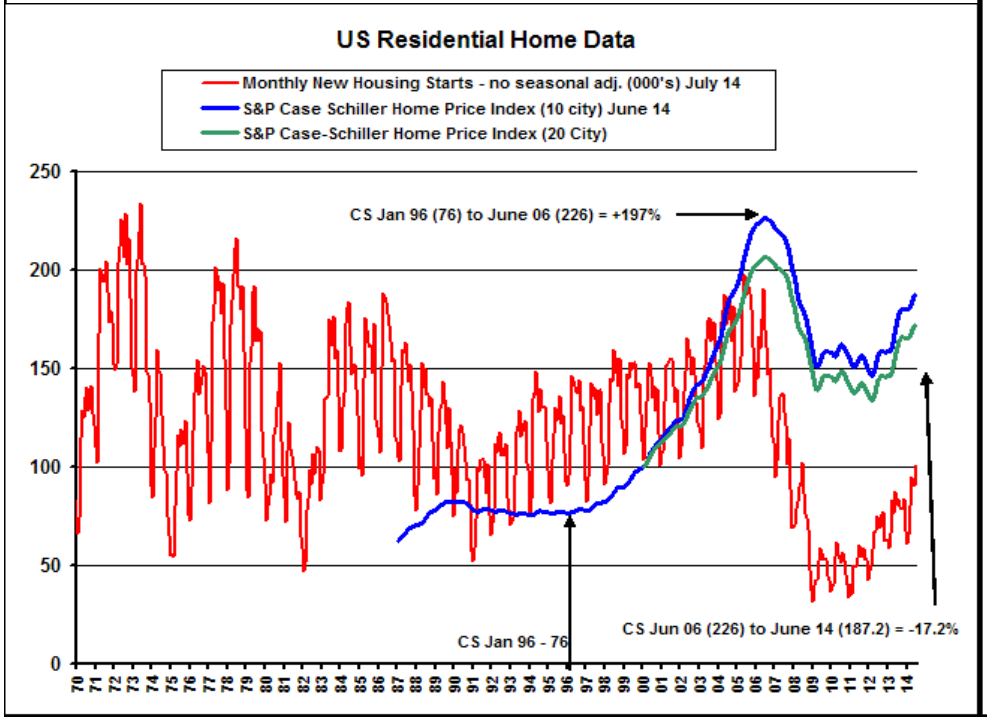


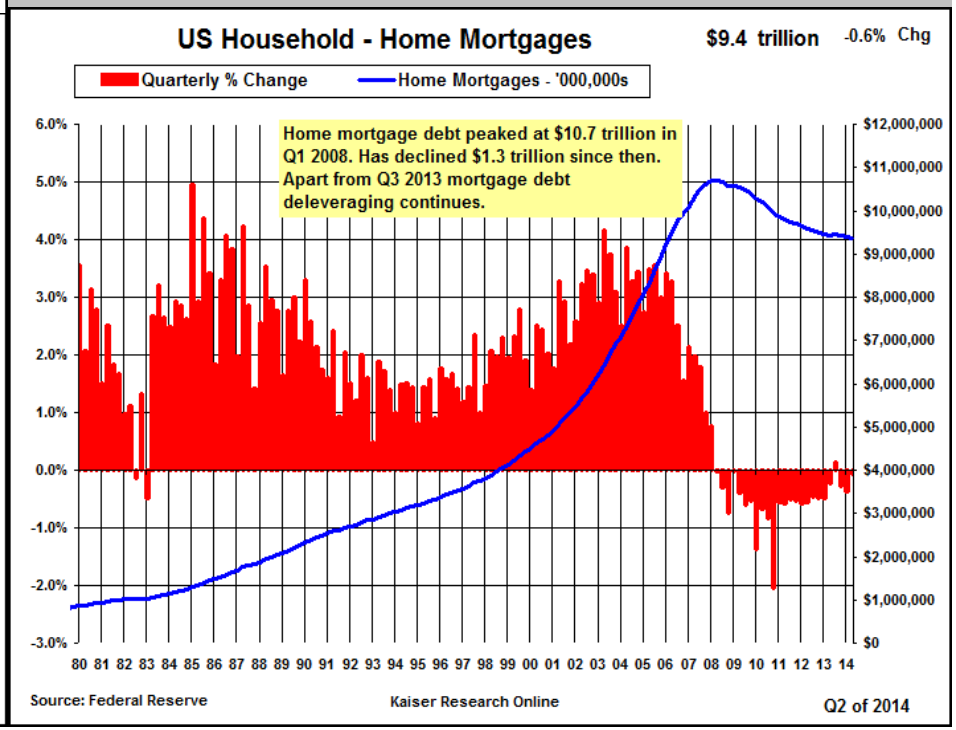




Net real estate equity recovered 2/3 of 2006 peak, but real estate recovered only half its loss.

Who captured the rebound, why is there no wealth effect & where is the credit expansion?





- **Why do businesses spend their capital on share buybacks rather than invest in domestic production capacity?**
- **Why do real wages keep declining?**
- **Why are the banks not expanding their loan portfolios?**
- **Why do student graduates have a hard time getting qualified jobs despite taking on record debt?**
- **Why do angry old white people sucking up Medicare hate ObamaCare so much, something that benefits the young people whose taxes have to fund America's biggest and fastest growing government expense sectors which exclusively benefit retirees?**
- **What exactly are our children and grandchildren going to do that will facilitate the consumption needed to sustain the advertising that underpins all this free stuff on the internet & smart phones?**
- **Why is there such a strong end-times mentality?**
- **How did our junior resource sector get bogged down in a poisonous, ideologically mean-spirited, intellectually incoherent swamp?**

The Federal Reserve Solution

- End quantitative easing in October to remove the intravenous feed which business interprets as evidence of a sick economy that will die without life support
- Gradually raise short term interest rates to levels that deliver a positive real rate of return for low risk investments
- Pray that business will start investing in output capacity expansion, creating the jobs whose longer term security encourages consumer spending and bank lending
- View a 10%-15% equity market correction during the transition as a healthy ("it was fun while it lasted") inequality reset that nudges the middle class out of its risk aversion and enables angry old white people to be less frightened

Conceptual Industry Issues

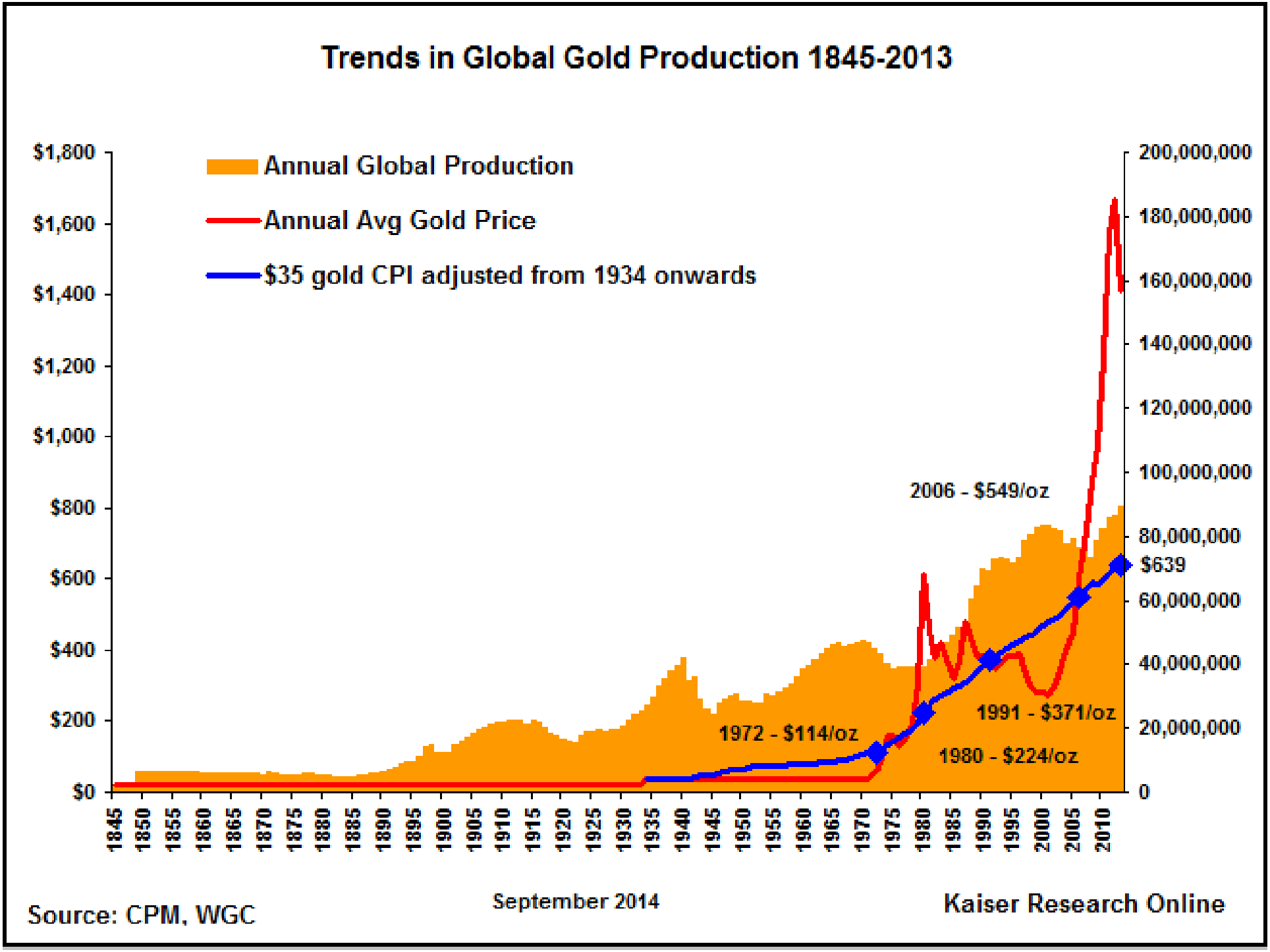
Discredited Gold Bug Narrative

- **Problem:** The politicization of gold as an icon for a right wing ideology by western pundits, namely the libertarian view of unfettered free markets, even though this view is not shared by the constituencies who are the bulk net buyers of gold, has done near irreparable harm to the junior resource sector.

- While the fringe that blathers about "hyper-inflation" and "fiat currency debasement" will cling to its apocalyptic vision, the backlash engendered on Wall Street and Main Street is wiping out optimism that with time a higher real price is inevitable for gold.

- For the resource juniors only higher real gold prices matter, but they will suffer while we endure lower gold prices that accompany a normalization of global economic growth and the purge of a narrative that never promised anything for the resource juniors.

- **Solution:** develop an alternative gold narrative that allows optimism about higher real gold prices to be compatible with the vested interests of both Wall and Main Street.


Trends in Global Gold Production 1845-2013
Annual Global Production
Annual Avg Gold Price
$35 gold CPI adjusted from 1934 onwards
$1,800
$1,600
$1,400
$1,200
$1,000
$800
$600
$400
$200
$0
200,000,000
180,000,000
160,000,000
140,000,000
120,000,000
100,000,000
80,000,000
$639
60,000,000
40,000,000
20,000,000
0
2006 - $549/oz
1991 - $371/oz
1972 - $114/oz
1980 - $224/oz
1845
1850
1855
1860
1865
1870
1875
1880
1885
1890
1895
1900
1905
1910
1915
1920
1925
1930
1935
1940
1945
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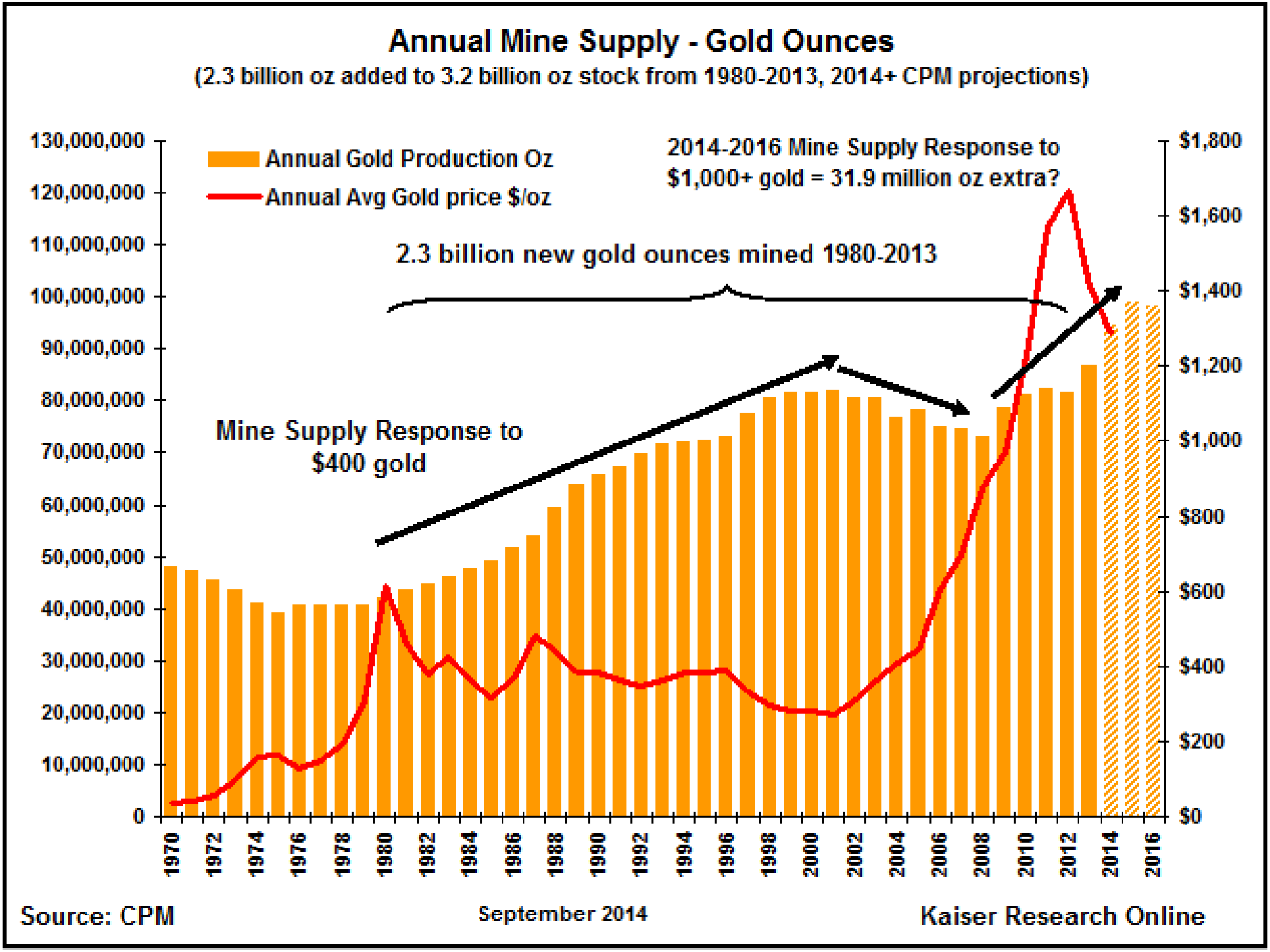
2005
2010
Source: CPM, WGC
September 2014
Kaiser Research Online


Annual Mine Supply - Gold Ounces
(2.3 billion oz added to 3.2 billion oz stock from 1980-2013, 2014+ CPM projections)
Annual Gold Production Oz
Annual Avg Gold price $/oz
2014-2016 Mine Supply Response to
$1,000+ gold = 31.9 million oz extra?
2.3 billion new gold ounces mined 1980-2013
Mine Supply Response to
$400 gold
130,000,000
120,000,000
110,000,000
100,000,000
90,000,000
80,000,000
70,000,000
60,000,000
50,000,000
40,000,000
30,000,000
20,000,000
10,000,000
0
$1,800
$1,600
$1,400
$1,200
$1,000
$800
$600
$400
$200
$0
1970
1972
1974
1976
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1980
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2008
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2012
2014
2016
Source: CPM
September 2014
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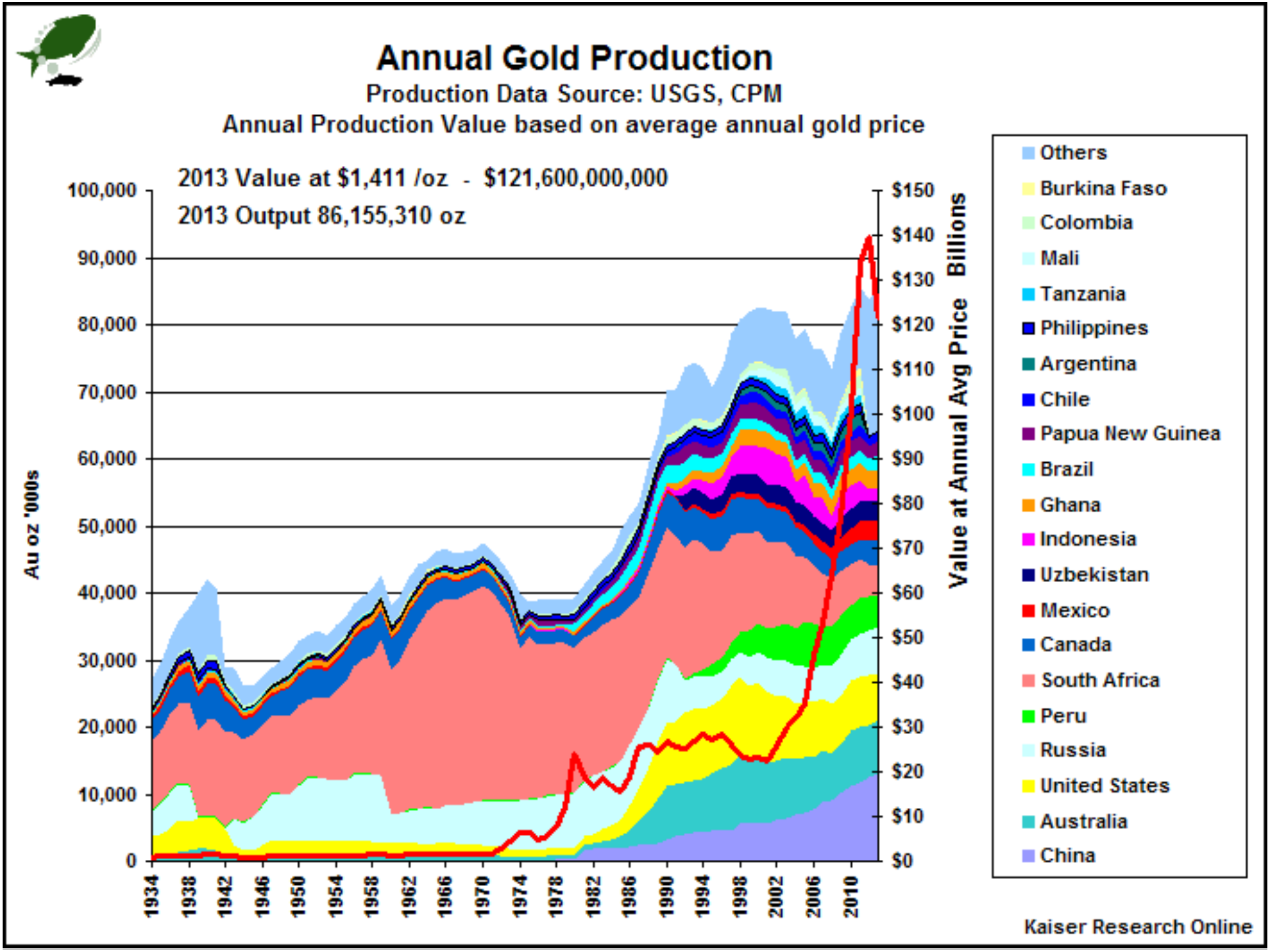
Annual Gold Production
Production Data Source: USGS, CPM
Annual Production Value based on average annual gold price
2013 Value at $1,411 /oz - $121,600,000,000
2013 Output 86,155,310 oz
Au oz '000s
Value at Annual Avg Price Billions
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
$150
$140
$130
$120
$110
$100
$90
$80
$70
$60
$50
$40
$30
$20
$10
$0
1934
1938
1942
1946
1950
1954
1958
1962
1966
1970
1974
1978
1982
1986
1990
1994
1998
2002
2006
2010
Others
Burkina Faso
Colombia
Mali
Tanzania
Philippines
Argentina
Chile
Papua New Guinea
Brazil
Ghana
Indonesia
Uzbekistan
Mexico
Canada
South Africa
Peru
Russia
United States
Australia
China
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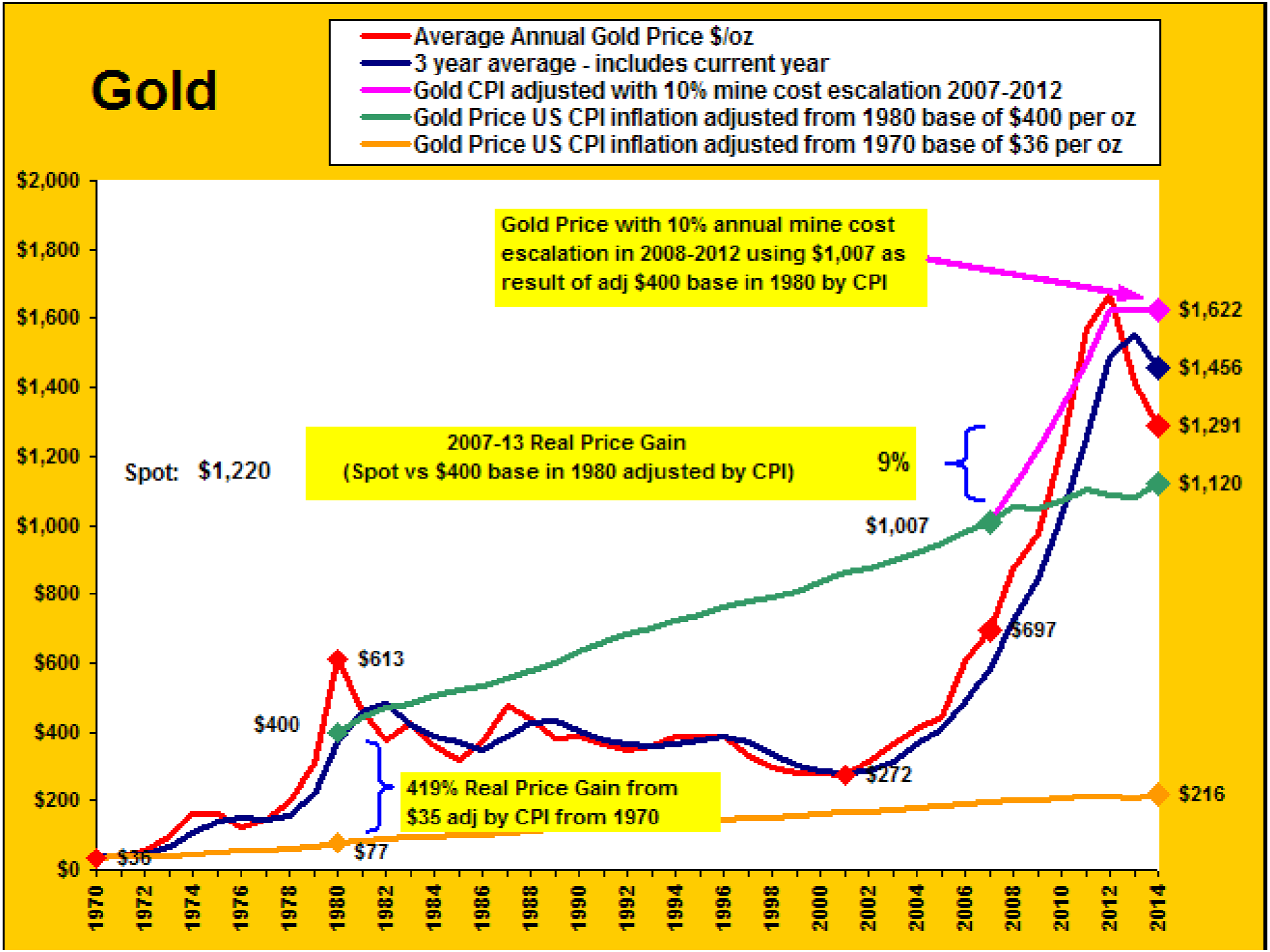
Gold
Average Annual Gold Price $/oz
3 year average - includes current year
Gold CPI adjusted with 10% mine cost escalation 2007-2012
Gold Price US CPI inflation adjusted from 1980 base of $400 per oz
Gold Price US CPI inflation adjusted from 1970 base of $36 per oz
Gold Price with 10% annual mine cost escalation in 2008-2012 using $1,007 as result of adj $400 base in 1980 by CPI
Spot: $1,220
2007-13 Real Price Gain
(Spot vs $400 base in 1980 adjusted by CPI)
9%
419% Real Price Gain from
$35 adj by CPI from 1970
$1,622
$1,456
$1,291
$1,120
$1,007
$697
$613
$400
$272
$216
$36
$77
$2,000
$1,800
$1,600
$1,400
$1,200
$1,000
$800
$600
$400
$200
$0
1970
1972
1974
1976
1978
1980
1982
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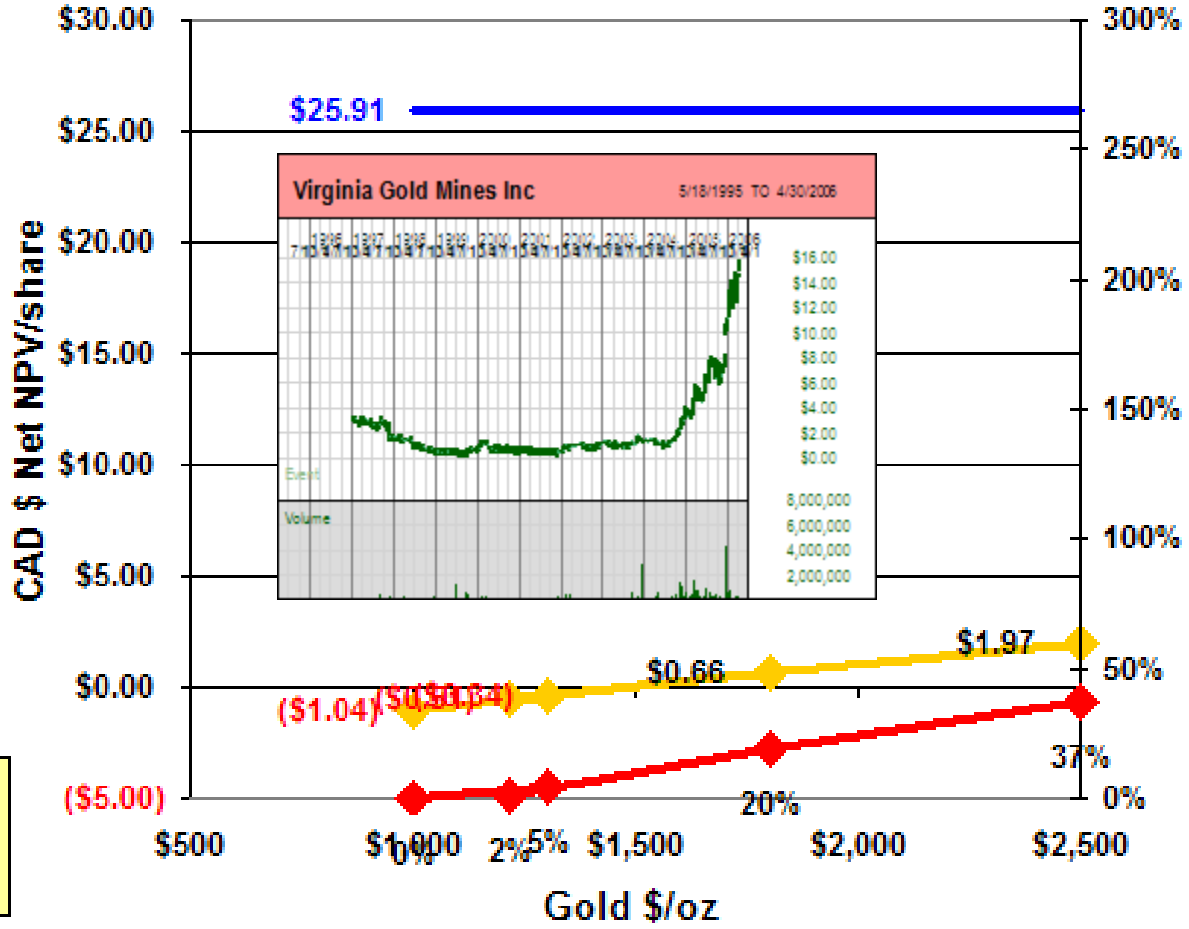
2004
2006
2008
2010
2012
2014

Goldcorp - Eleonore: After-Tax Sensitivity

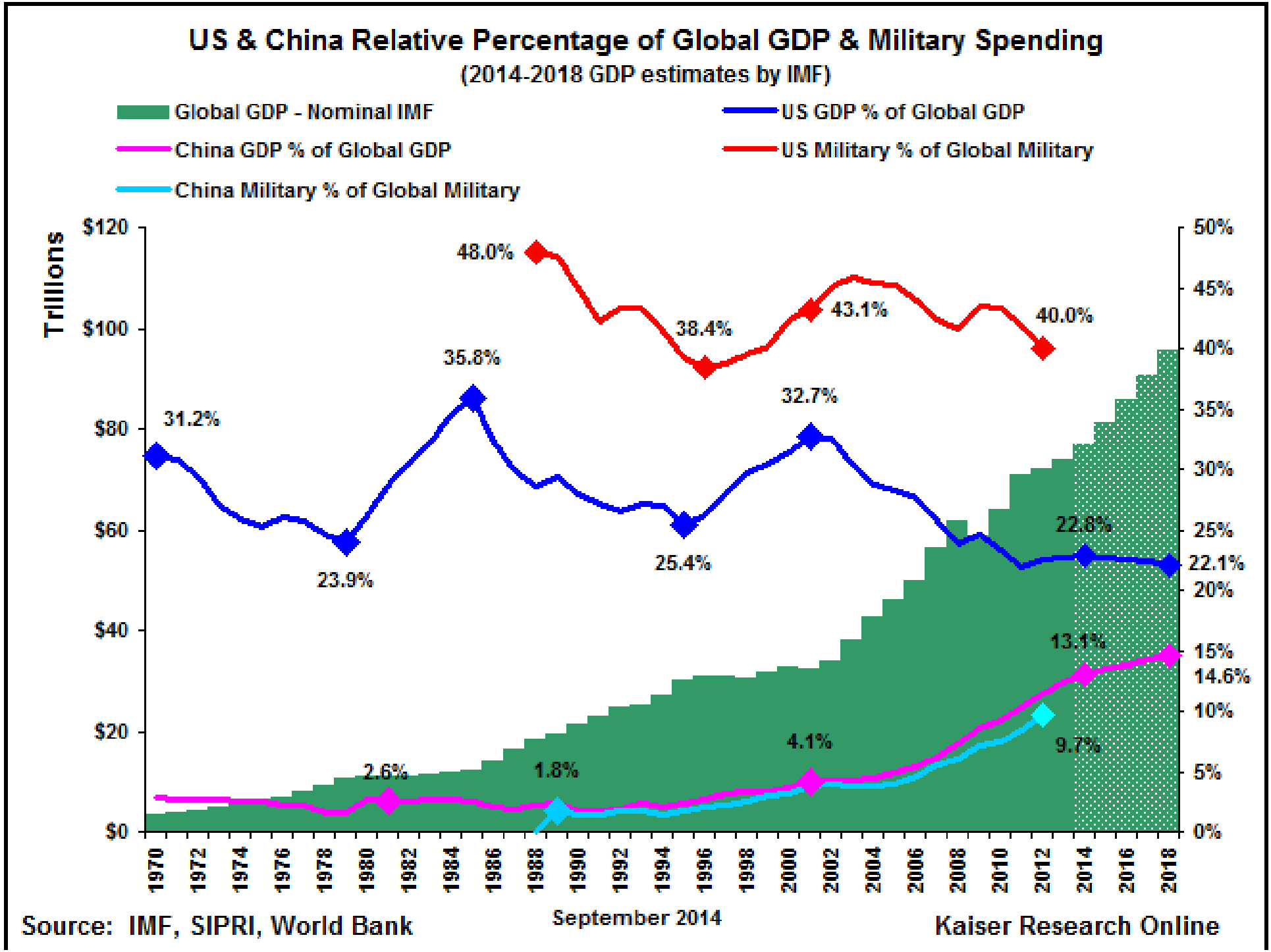
100% After-Tax Net Present Value		
Pessimistic:	$1,000/oz	($860,863,343)
Base Case:	$1,300/oz	($279,403,783)
Spot:	$1,220/oz	($424,002,662)
Optimistic:	$1,800/oz	$544,929,167
Fantasy:	$2,500/oz	$1,639,064,727



Net Present Value based on life of mine averages, by-products use spot prices.

FS Jan 26, 2014: 7,000 tpd OP/UG, 7.4 yr; CapEx: $1,850 M, SusCapEx: $310 M, OpEx: $106.20/t; Tax: 30% DDBM
Fully Diluted: 830.8 M, Stock Price: $25.91; Located: Canada - 100% WI, Discount Rate: 10%

LOM Tonnage: 19,300,000 t @ 6.49 g/t Au
LOM Output: 3,756,761 oz Au


US & China Relative Percentage of Global GDP & Military Spending
(2014-2018 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
Trillions
$120
$100
$80
$60
$40
$20
$0
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
48.0%
38.4%
43.1%
40.0%
35.8%
31.2%
32.7%
23.9%
25.4%
22.8%
22.1%
13.1%
14.6%
9.7%
4.1%
2.6%
1.8%
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
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1998
2000
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2004
2006
2008
2010
2012
2014
2016
2018
Source: IMF, SIPRI, World Bank
September 2014
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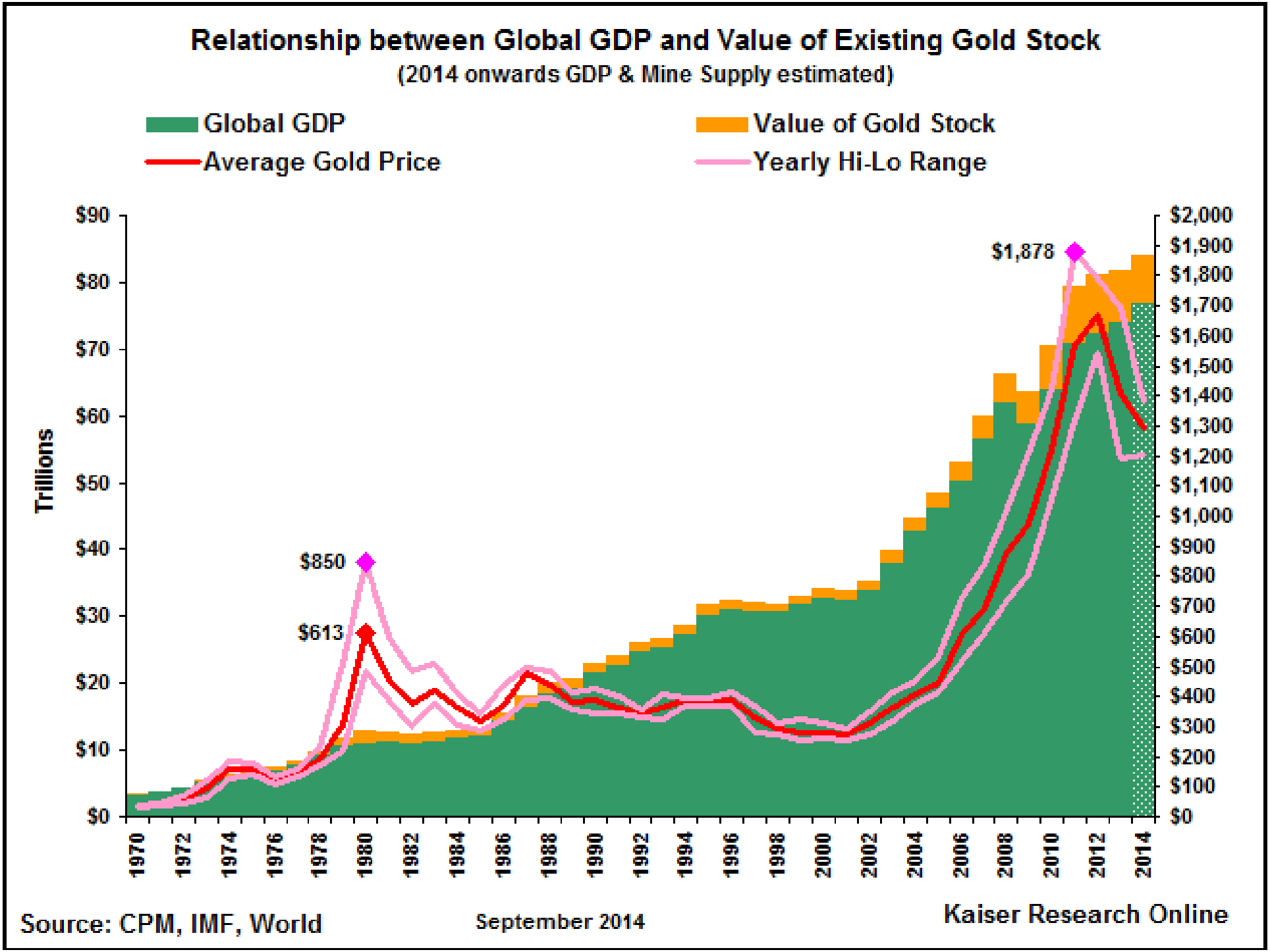
Relationship between Global GDP and Value of Existing Gold Stock
(2014 onwards GDP & Mine Supply estimated)
Global GDP
Value of Gold Stock
Average Gold Price
Yearly Hi-Lo Range
Trillions
$90
$80
$70
$60
$50
$40
$30
$20
$10
$0
$2,000
$1,900
$1,800
$1,700
$1,600
$1,500
$1,400
$1,300
$1,200
$1,100
$1,000
$900
$800
$700
$600
$500
$400
$300
$200
$100
$0
$850
$613
$1,878
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
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2004
2006
2008
2010
2012
2014
Source: CPM, IMF, World
September 2014
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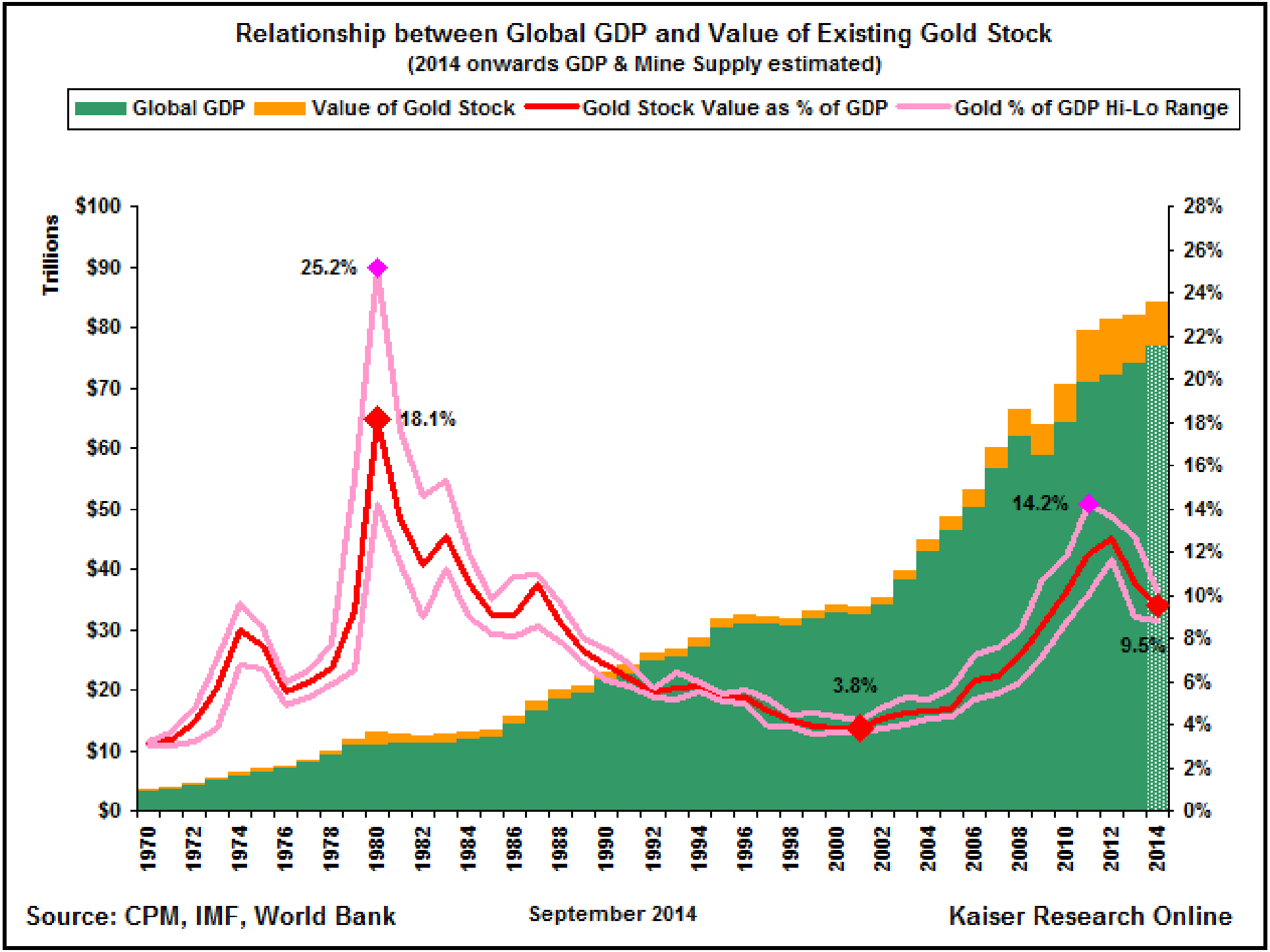
Relationship between Global GDP and Value of Existing Gold Stock
(2014 onwards GDP & Mine Supply estimated)
Global GDP
Value of Gold Stock
Gold Stock Value as % of GDP
Gold % of GDP Hi-Lo Range
Trillions
$100
$90
$80
$70
$60
$50
$40
$30
$20
$10
$0
28%
26%
24%
22%
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
25.2%
18.1%
3.8%
14.2%
9.5%
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, World Bank
September 2014
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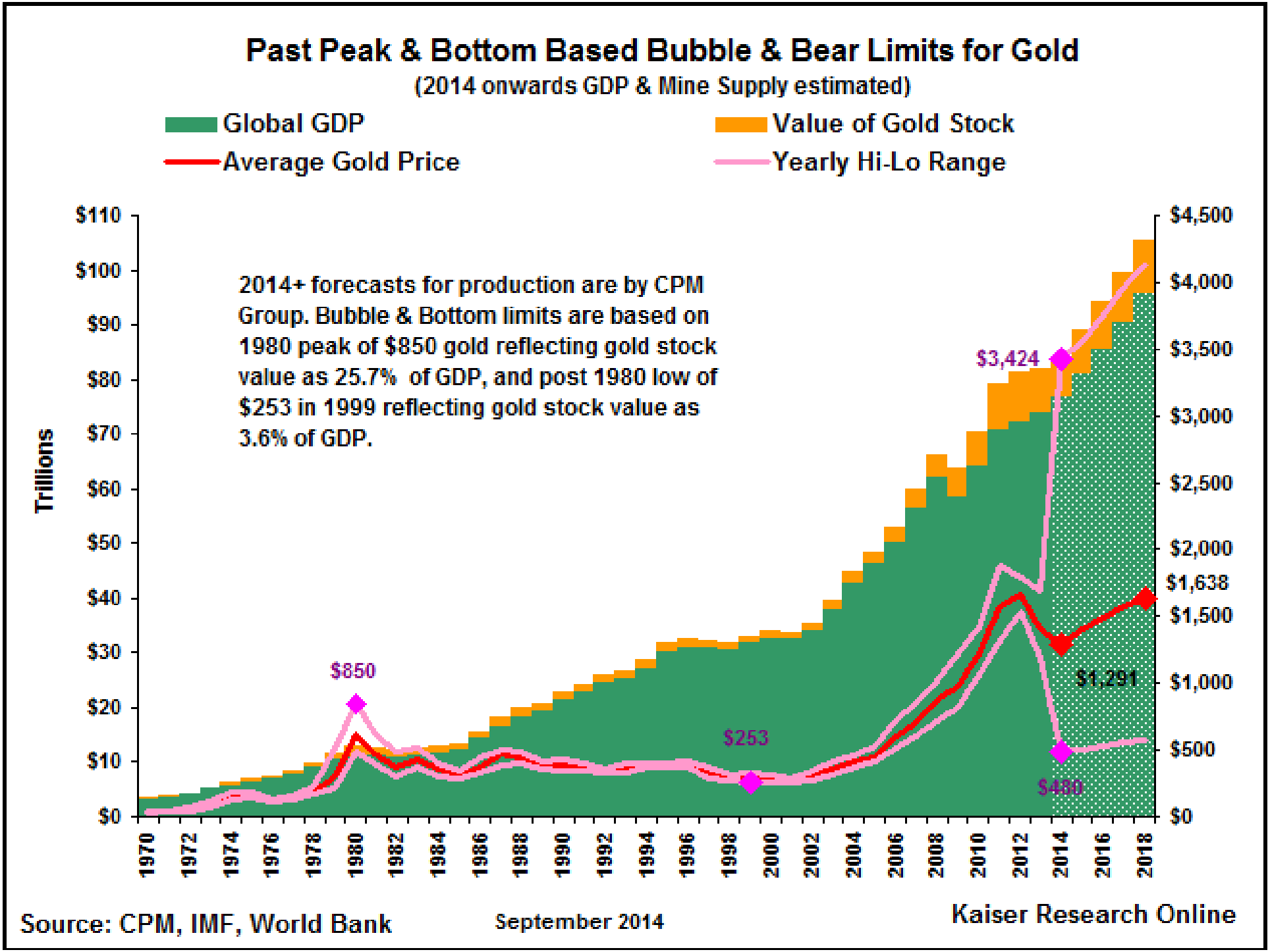

Past Peak & Bottom Based Bubble & Bear Limits for Gold
(2014 onwards GDP & Mine Supply estimated)
Global GDP
Value of Gold Stock
Average Gold Price
Yearly Hi-Lo Range
2014+ forecasts for production are by CPM Group. Bubble & Bottom limits are based on 1980 peak of $850 gold reflecting gold stock value as 25.7% of GDP, and post 1980 low of $253 in 1999 reflecting gold stock value as 3.6% of GDP.
Trillions
$110
$100
$90
$80
$70
$60
$50
$40
$30
$20
$10
$0
$4,500
$4,000
$3,500
$3,000
$2,500
$2,000
$1,638
$1,500
$1,000
$500
$0
$850
$253
$3,424
$480
$1,291
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
Source: CPM, IMF, World Bank
September 2014
Kaiser Research Online

Conceptual Industry Issues

Maturing Super-Cycle

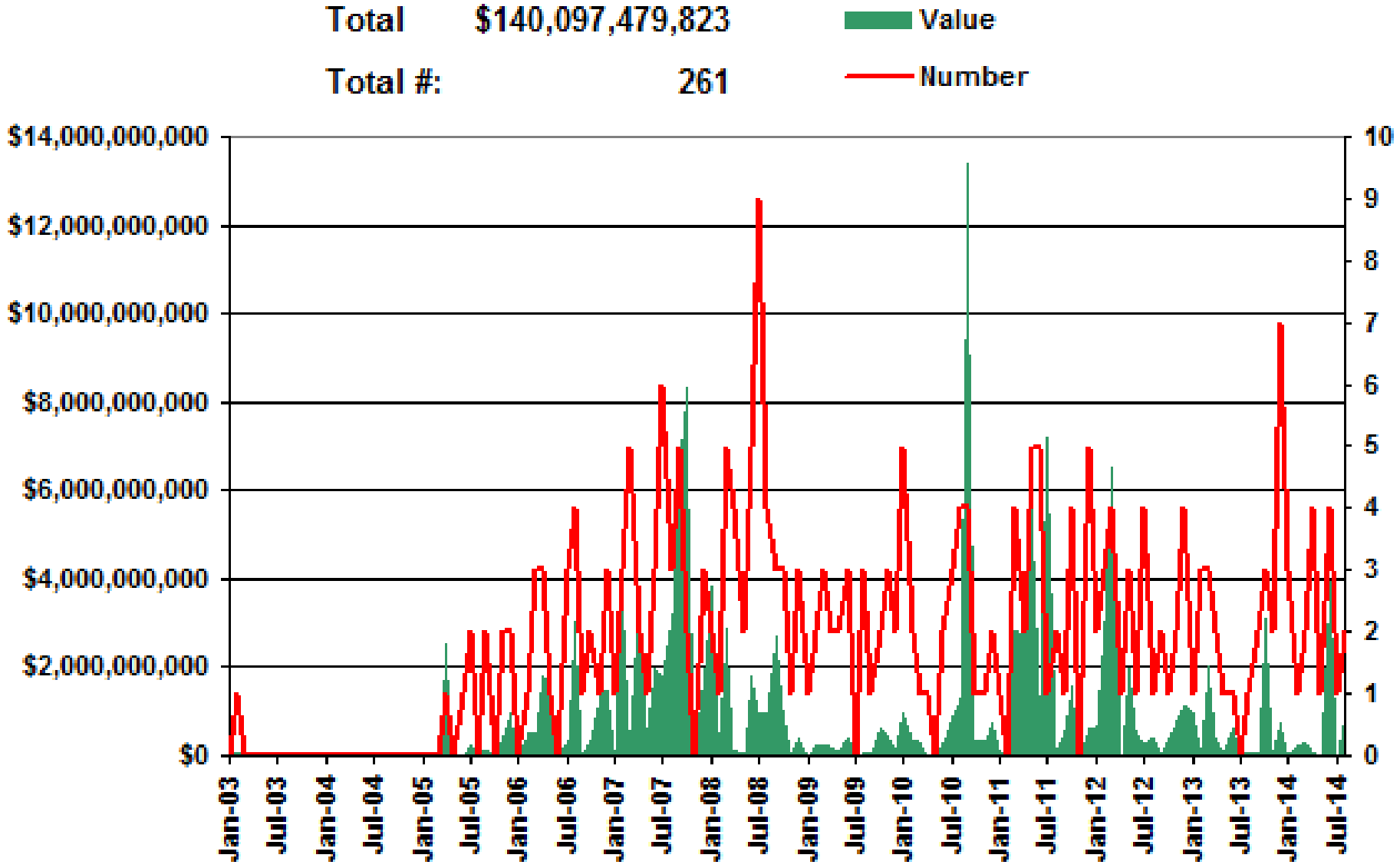
- **Problem:** Slowing global economic growth coupled with a lagged mining industry supply response limits near to medium term upside for real metal prices. The weakness of the global economy also chills the near term upside for gold prices. The takeover cycle of advanced projects is winding down and the remaining juniors will either lose their properties or be scooped up at rock bottom prices by parties willing to wait several years for the normal boom-bust commodity cycle to lay the groundwork for the next supply-demand imbalance that raises prices.

- **Solution:** Raising capital to advance deposits whose grades are marginal at prevailing metal prices will be difficult until the global macroeconomic outlook turns positive. Over 400 published economic studies largely make clear that at this stage most advanced projects are options on higher real metal prices. Resource juniors should focus on exploring for new discoveries whose grade and tonnage make them viable at prevailing metal prices.

Monthly Value TSX/TSXV Resource Junior Takeover Bids

Total $140,097,479,823

Total #: 261



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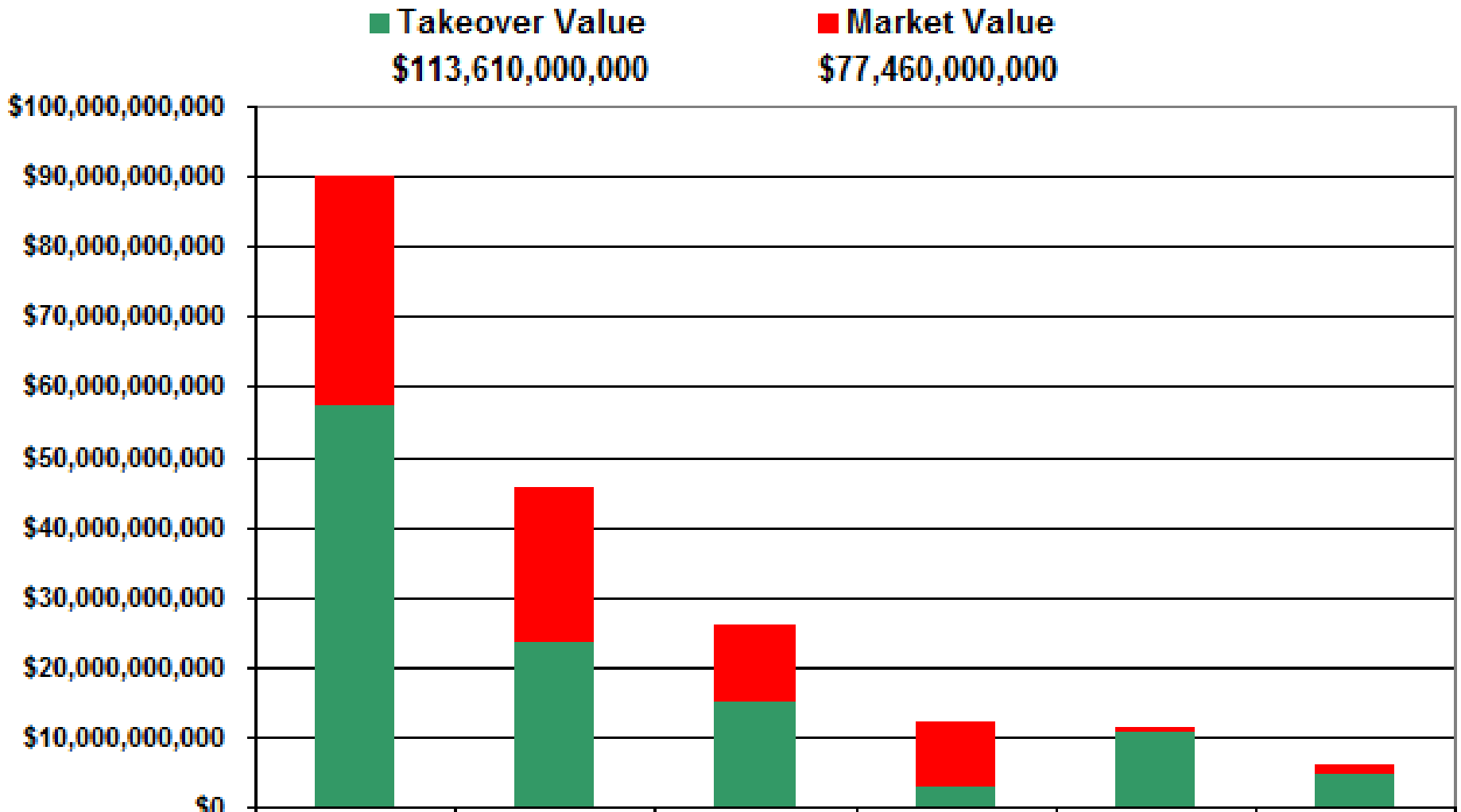
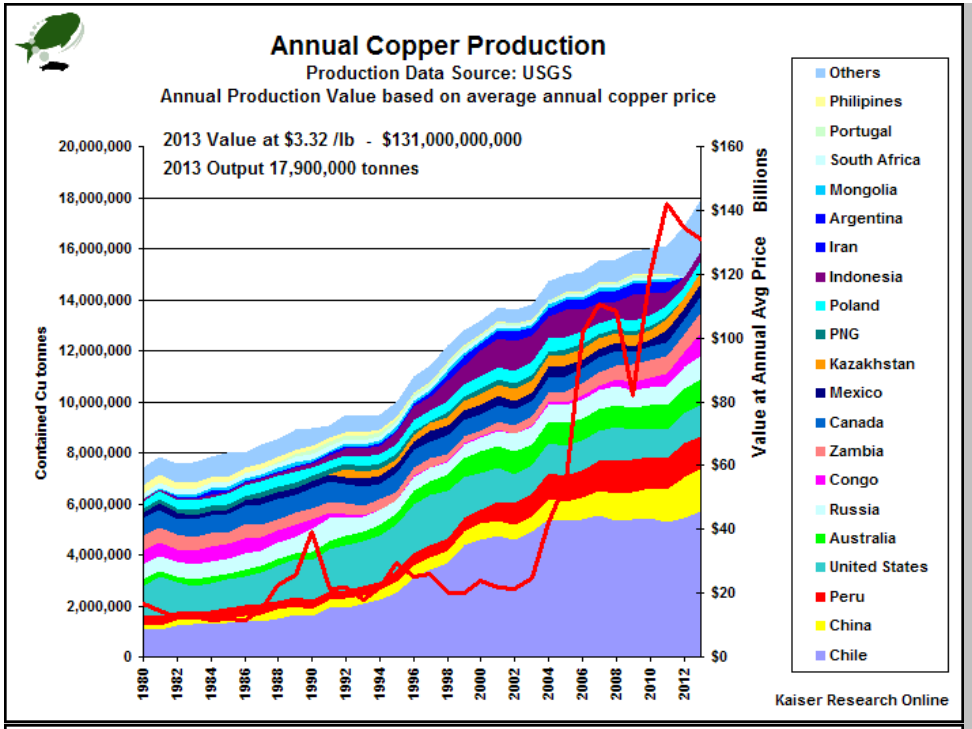
August 2014

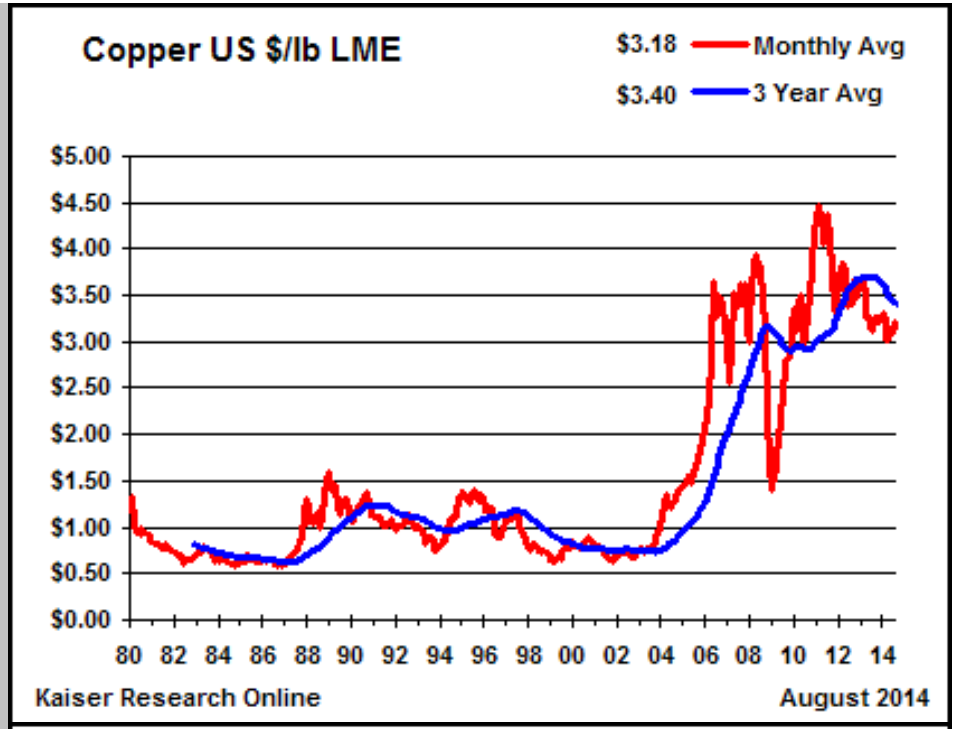
Advanced Canadian Resource Juniors

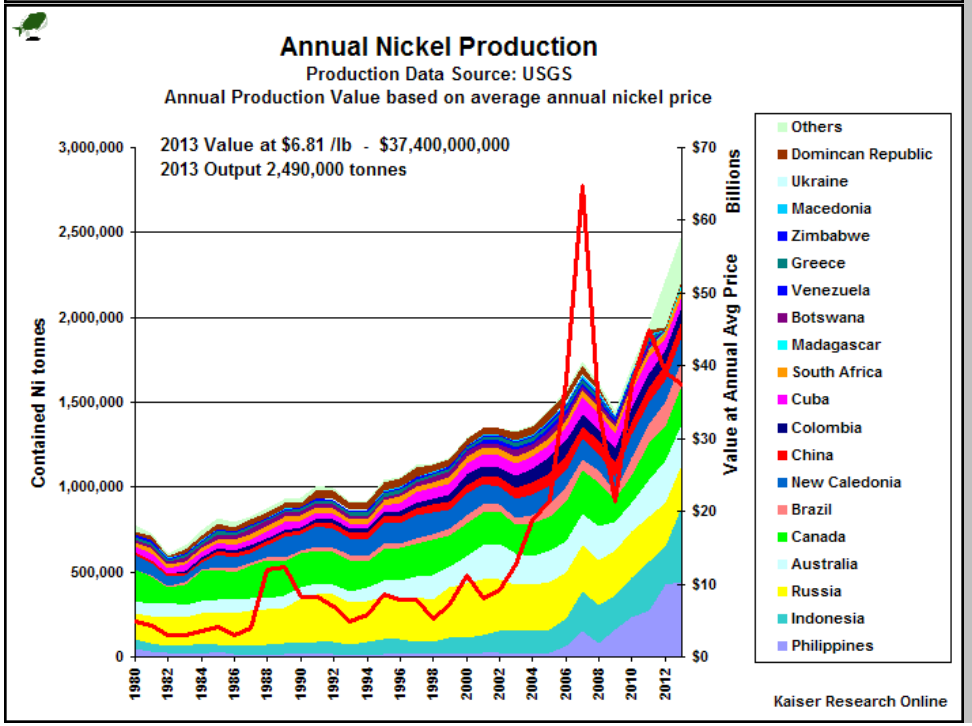
(Value by Juniors taken over and remaining based on primary metal)

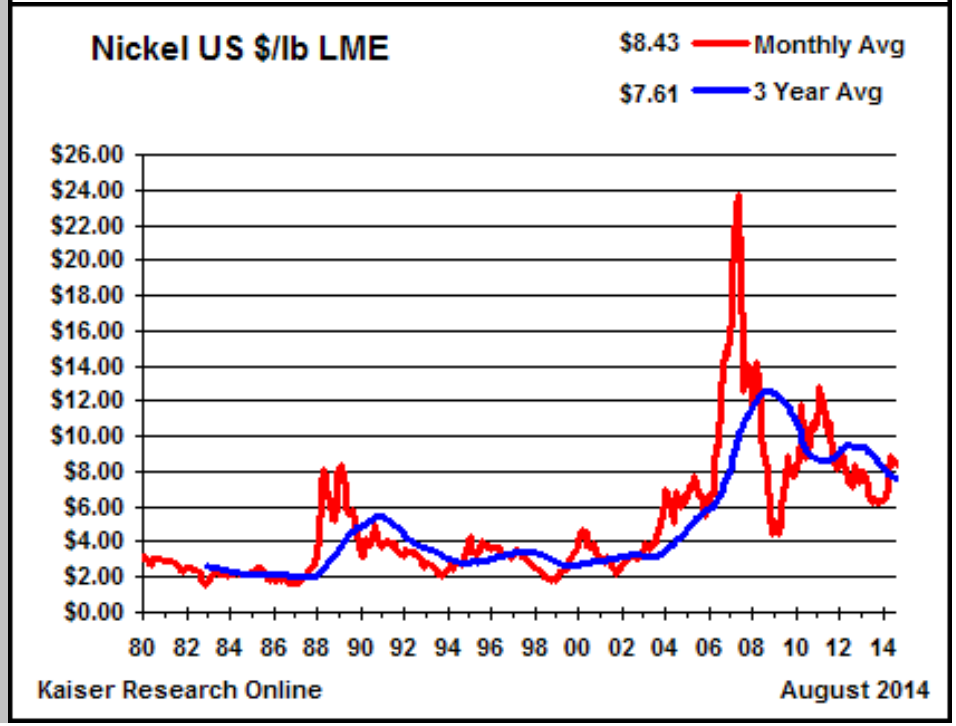


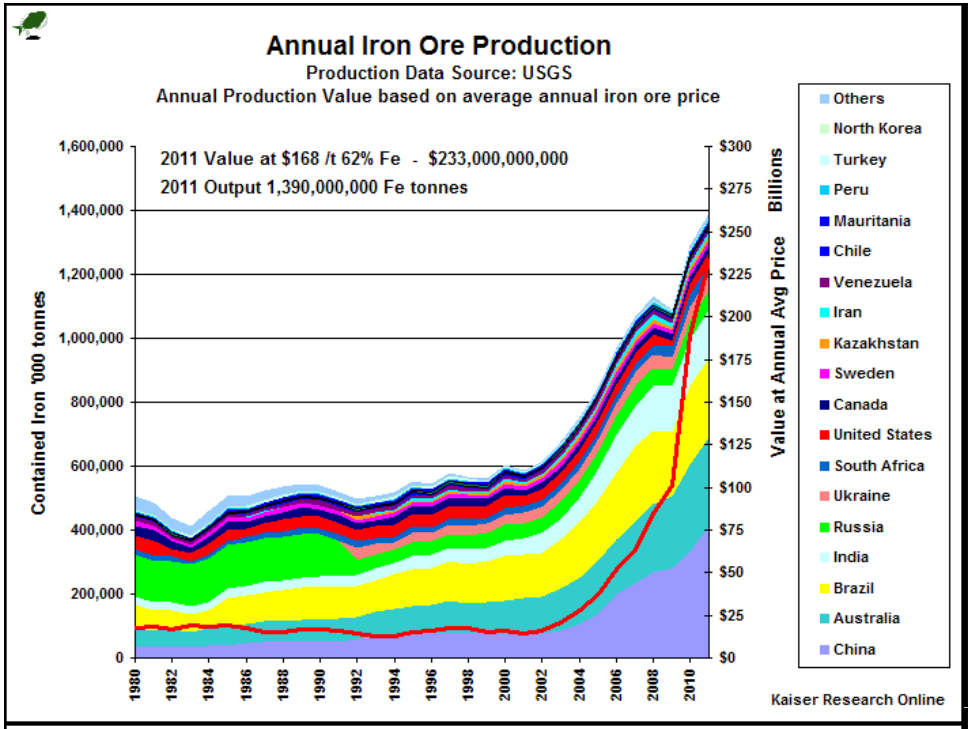
	Gold	Copper	Uranium	Silver	Nickel	Zinc
Market Value	$32,680,000,00	$22,300,000,00	$10,910,000,00	$9,330,000,000	$1,000,000,000	$1,240,000,000
Takeover Value	$57,200,000,00	$23,400,000,00	$15,080,000,00	$2,710,000,000	$10,540,000,00	$4,680,000,000

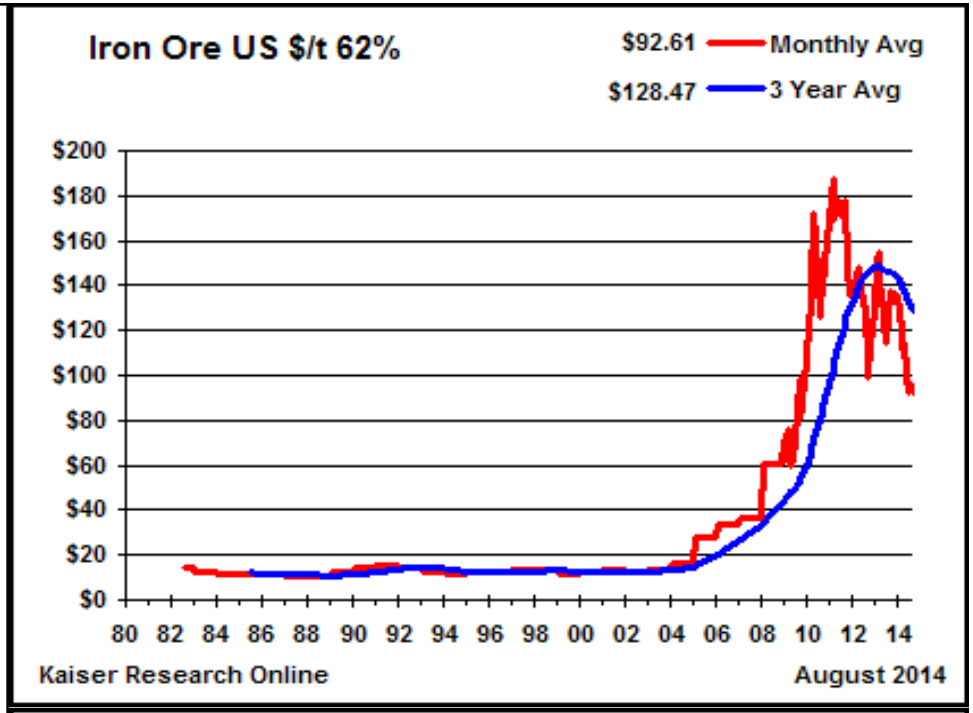

Annual Copper Production
Production Data Source: USGS
Annual Production Value based on average annual copper price
2013 Value at $3.32 /lb - $131,000,000,000
2013 Output 17,900,000 tonnes
Contained Cu tonnes
Value at Annual Avg Price Billions
Others
Philipines
Portugal
South Africa
Mongolia
Argentina
Iran
Indonesia
Poland
PNG
Kazakhstan
Mexico
Canada
Zambia
Congo
Russia
Australia
United States
Peru
China
Chile
Kaiser Research Online

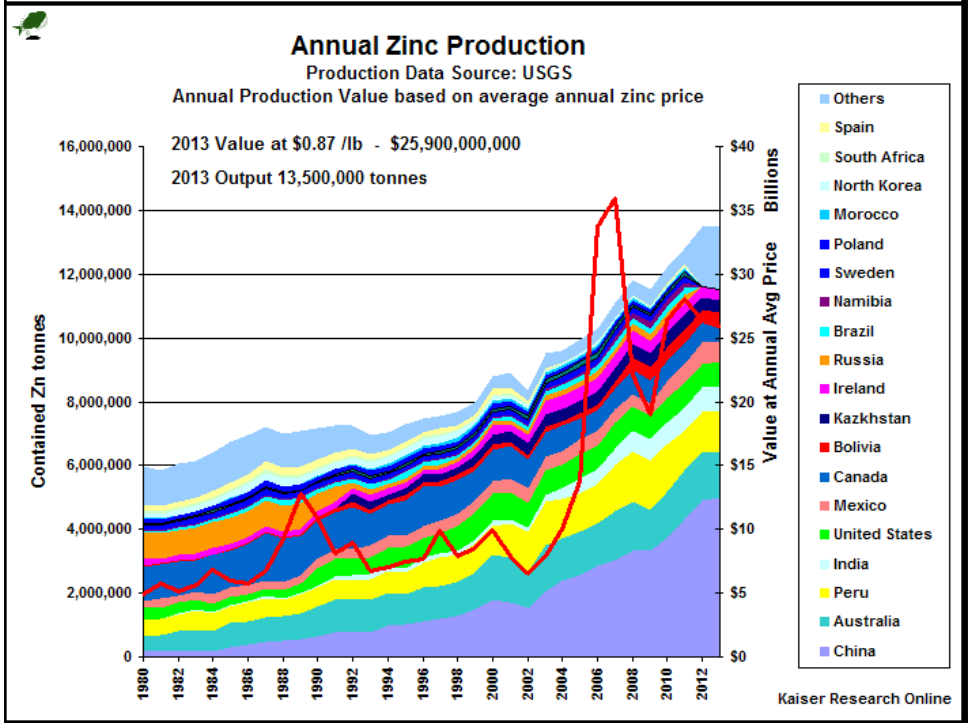

Copper US $/lb LME
$3.18 Monthly Avg
$3.40 3 Year Avg
Kaiser Research Online
August 2014

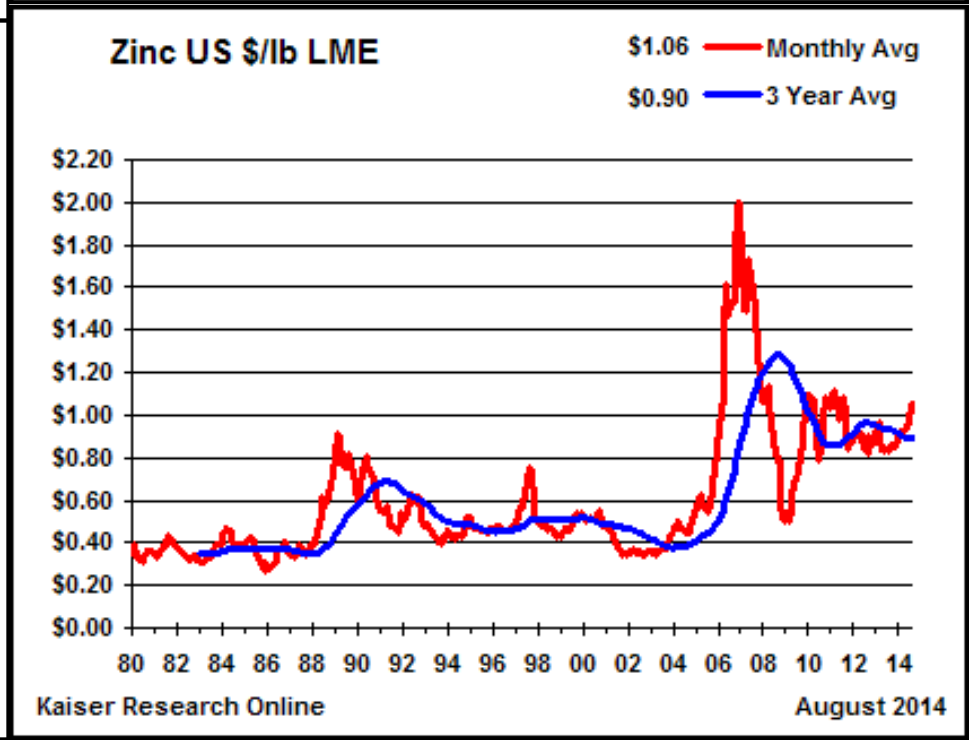

Annual Nickel Production
Production Data Source: USGS
Annual Production Value based on average annual nickel price
2013 Value at $6.81 /lb - $37,400,000,000
2013 Output 2,490,000 tonnes
Contained Ni tonnes
Value at Annual Avg Price Billions
Others
Domincan Republic
Ukraine
Macedonia
Zimbabwe
Greece
Venezuela
Botswana
Madagascar
South Africa
Cuba
Colombia
China
New Caledonia
Brazil
Canada
Australia
Russia
Indonesia
Philippines
Kaiser Research Online


Nickel US $/lb LME
$8.43 Monthly Avg
$7.61 3 Year Avg
Kaiser Research Online
August 2014

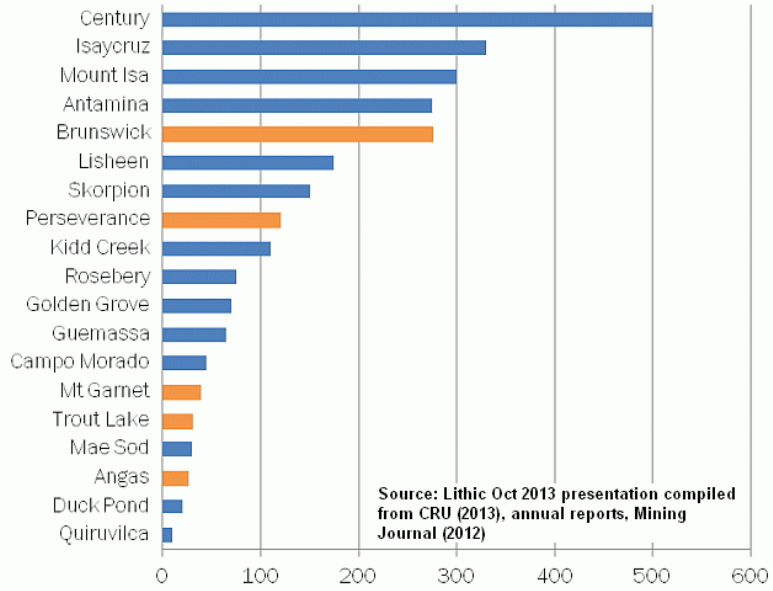

Annual Iron Ore Production
Production Data Source: USGS
Annual Production Value based on average annual iron ore price
2011 Value at $168 /t 62% Fe - $233,000,000,000
2011 Output 1,390,000,000 Fe tonnes
Contained Iron '000 tonnes
Value at Annual Avg Price Billions
Others
North Korea
Turkey
Peru
Mauritania
Chile
Venezuela
Iran
Kazakhstan
Sweden
Canada
United States
South Africa
Ukraine
Russia
India
Brazil
Australia
China
Kaiser Research Online


Iron Ore US $/t 62%
$92.61 Monthly Avg
$128.47 3 Year Avg
Kaiser Research Online
August 2014


Annual Zinc Production
Production Data Source: USGS
Annual Production Value based on average annual zinc price
2013 Value at $0.87 /lb - $25,900,000,000
2013 Output 13,500,000 tonnes
Contained Zn tonnes
Value at Annual Avg Price Billions
Others
Spain
South Africa
North Korea
Morocco
Poland
Sweden
Namibia
Brazil
Russia
Ireland
Kazkhstan
Bolivia
Canada
Mexico
United States
India
Peru
Australia
China
Kaiser Research Online

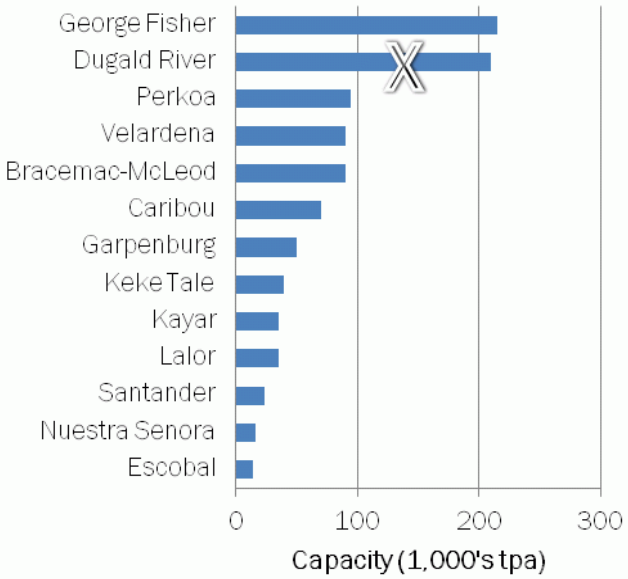

Zinc US $/lb LME
$1.06 Monthly Avg
$0.90 3 Year Avg
Kaiser Research Online
August 2014

Mine Closures/Reductions



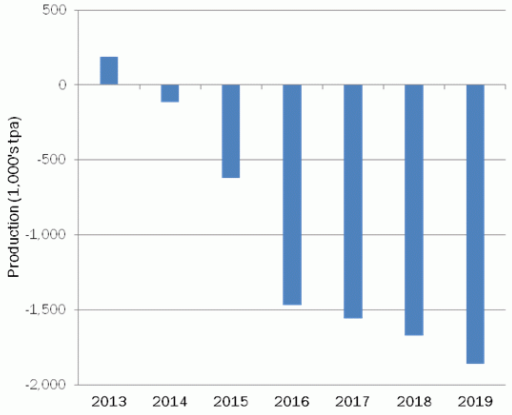
Source: Lithic Oct 2013 presentation compiled from CRU (2013), annual reports, Mining Journal (2012)

Mine Openings/Expansions

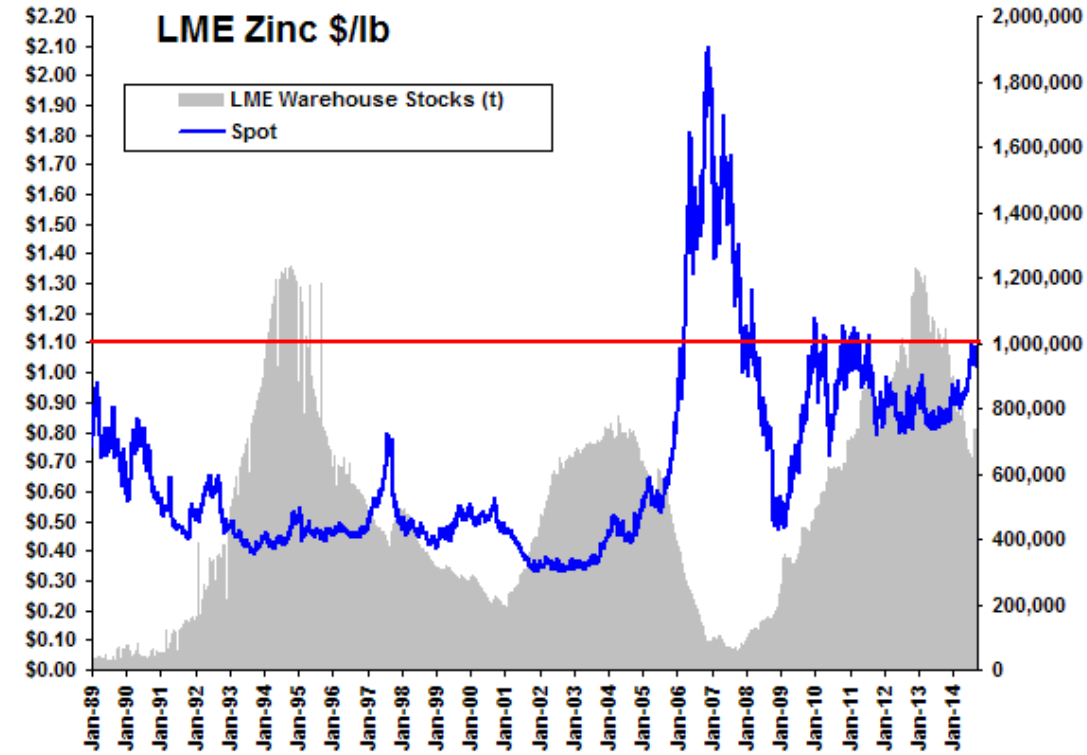


Source: Lithic Oct 2013 presentation compiled from CRU (2013), annual reports, Mining Journal (2012)

Zinc Supply/Deficit



Source: Lithic Oct 2013 presentation compiled from CRU (2013), annual reports, Mining Journal (2012)



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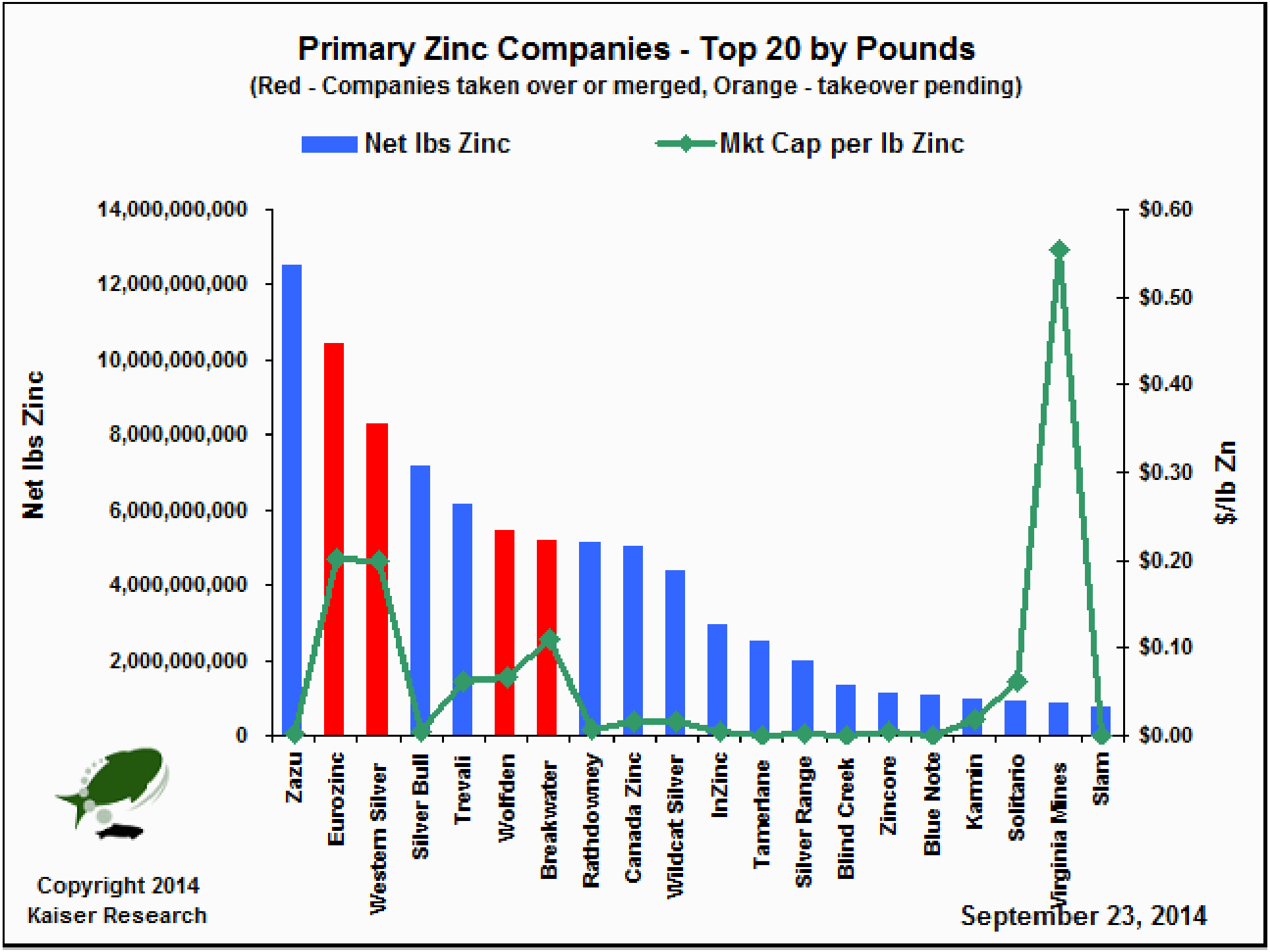
Primary Zinc Companies - Top 20 by Pounds
(Red - Companies taken over or merged, Orange - takeover pending)
Net lbs Zinc
Mkt Cap per lb Zinc
Net lbs Zinc
$/lb Zn
14,000,000,000
12,000,000,000
10,000,000,000
8,000,000,000
6,000,000,000
4,000,000,000
2,000,000,000
0
$0.60
$0.50
$0.40
$0.30
$0.20
$0.10
$0.00
Zazu
Eurozinc
Western Silver
Silver Bull
Trevali
Wolfden
Breakwater
Rathdowney
Canada Zinc
Wildcat Silver
InZinc
Tamerlane
Silver Range
Blind Creek
Zincore
Blue Note
Kamin
Solitario
Virginia Mines
Siam
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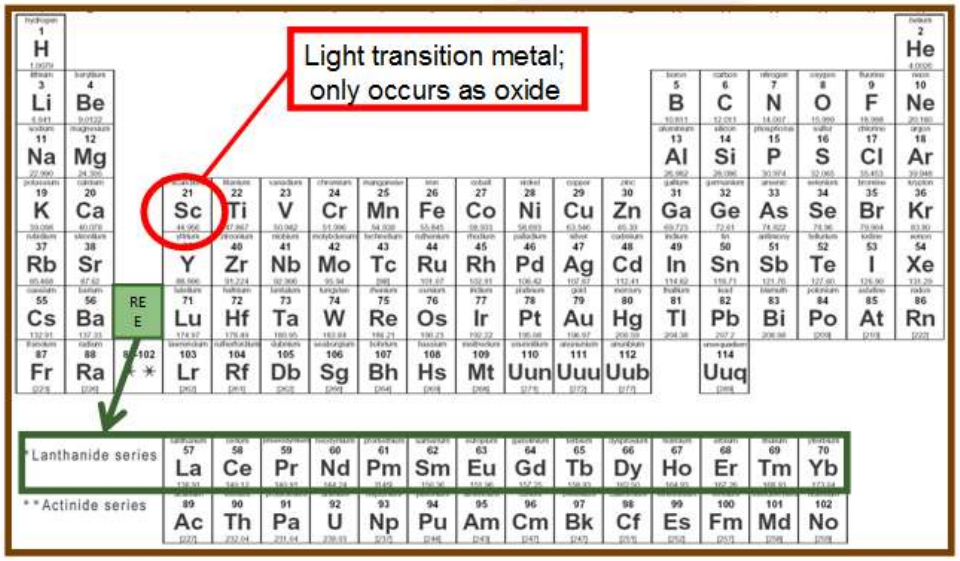
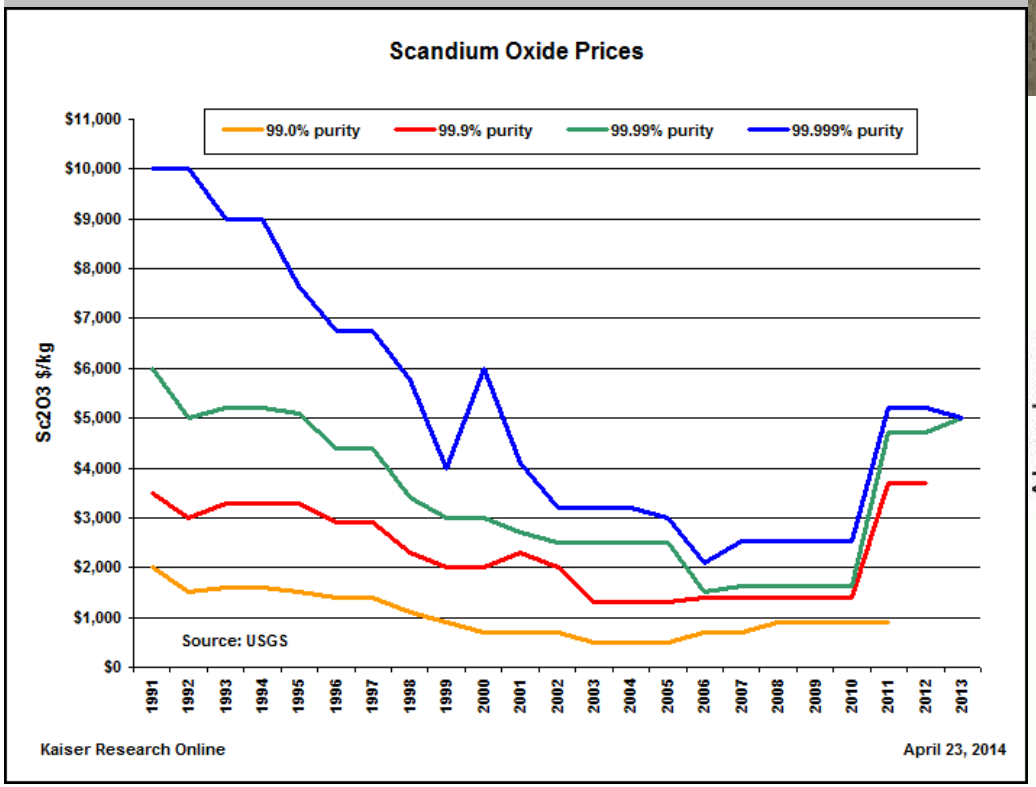
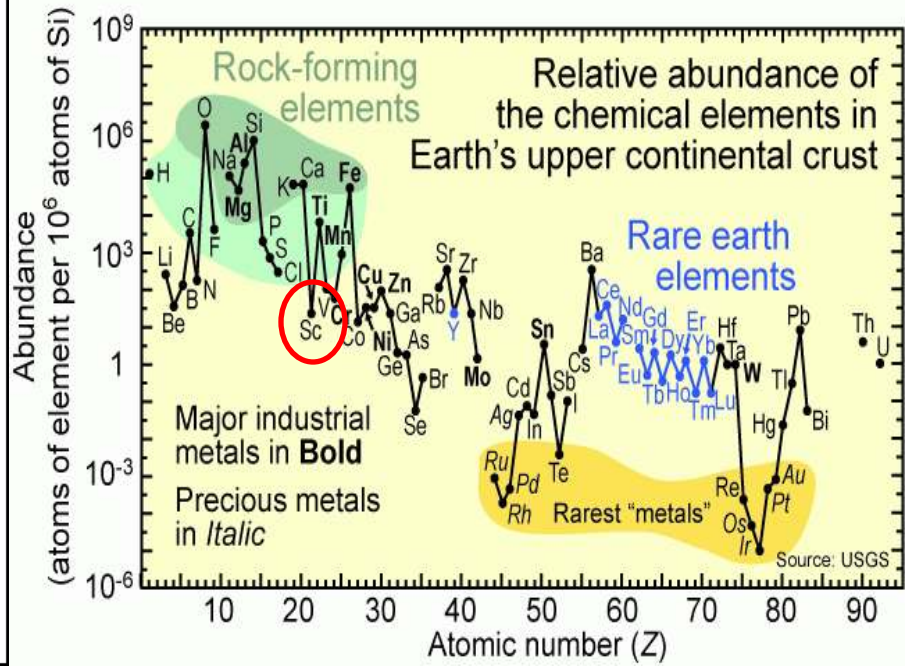
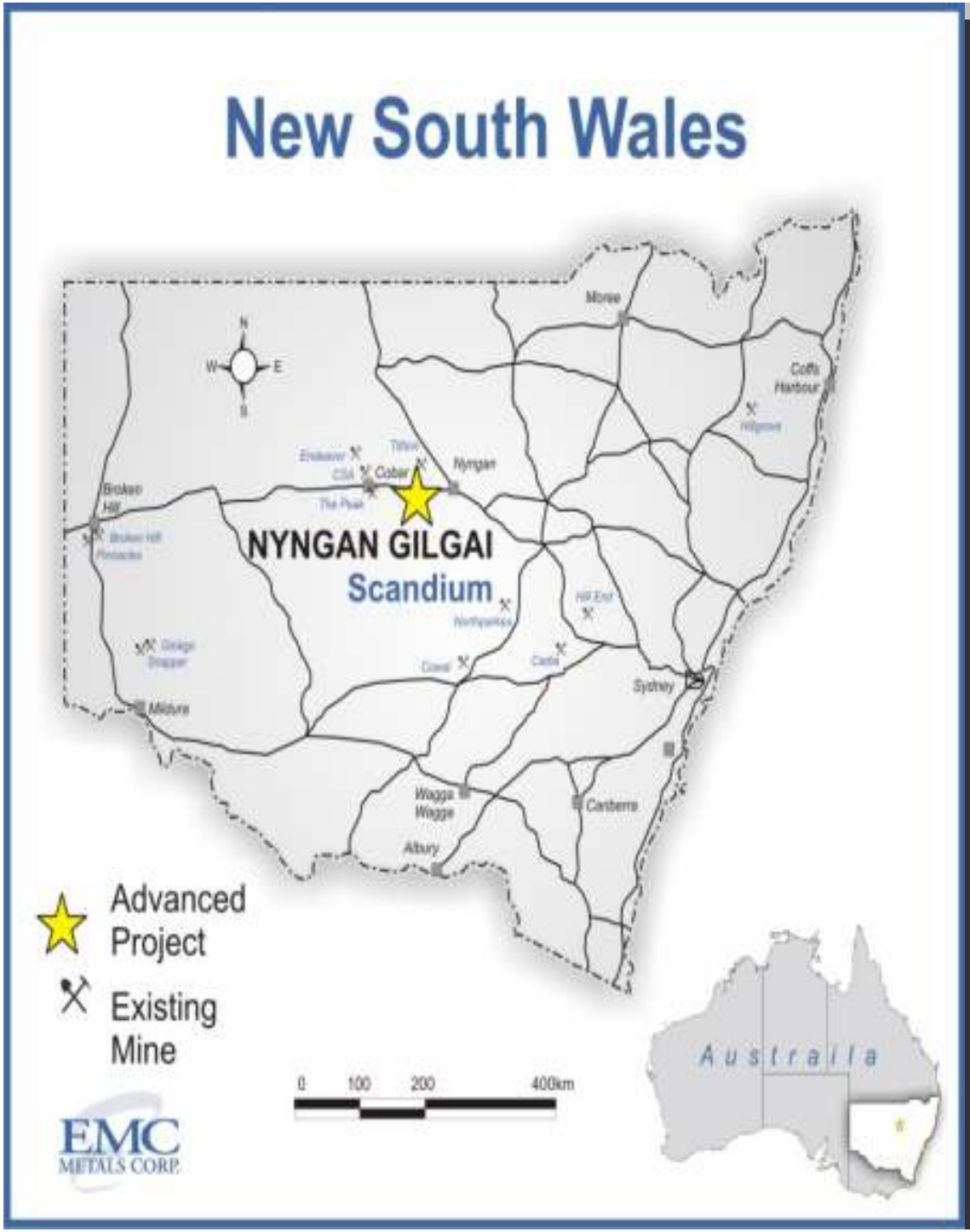
September 23, 2014

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









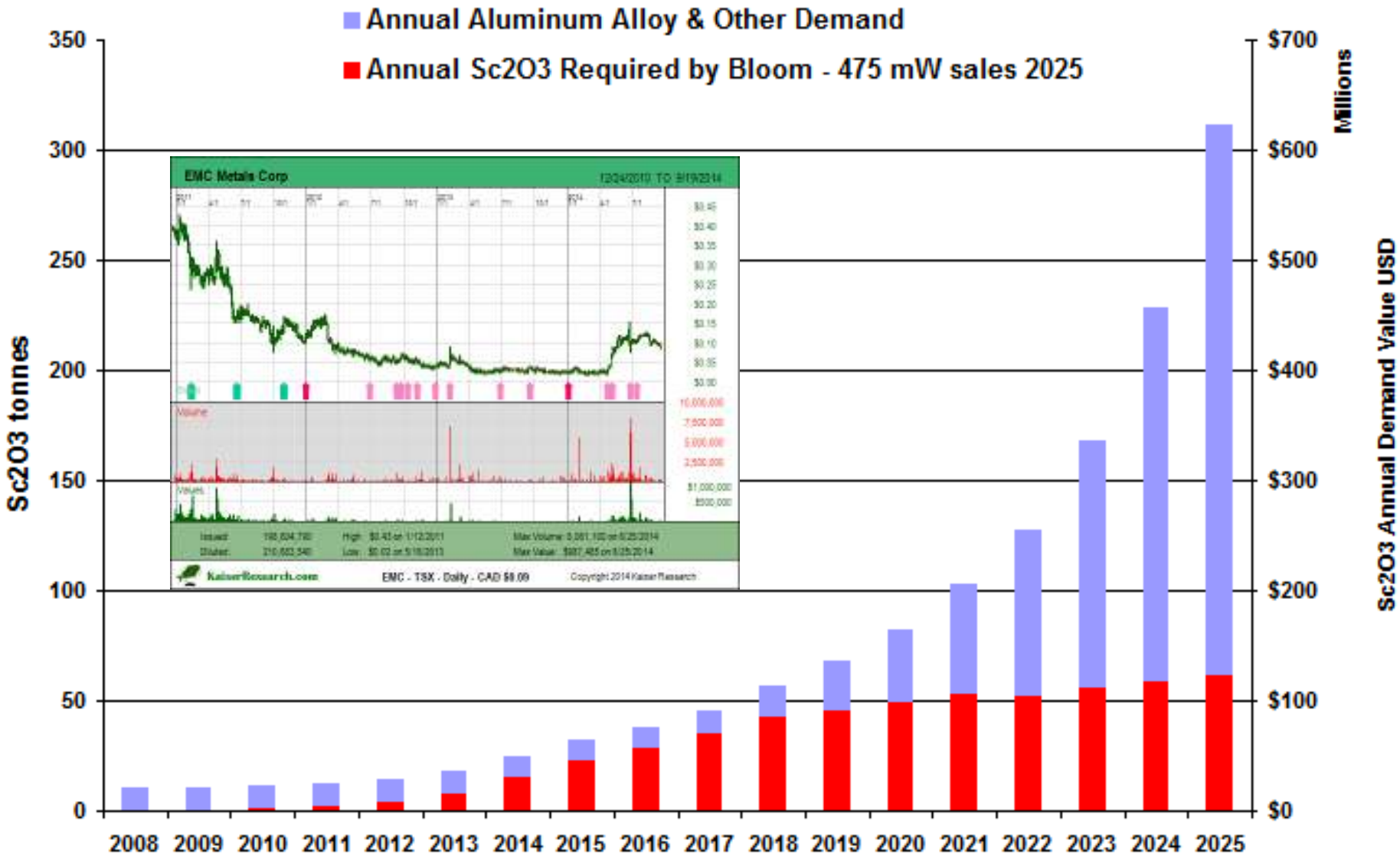
During last 6 years major enriched scandium deposits have been found that offer scaleable primary supply potential.

Aluminum Alloy Market

If you build it they will come!

Solid Oxide Fuel Market

Projected Scandium Market Value
at $2,000/kg Sc2O3



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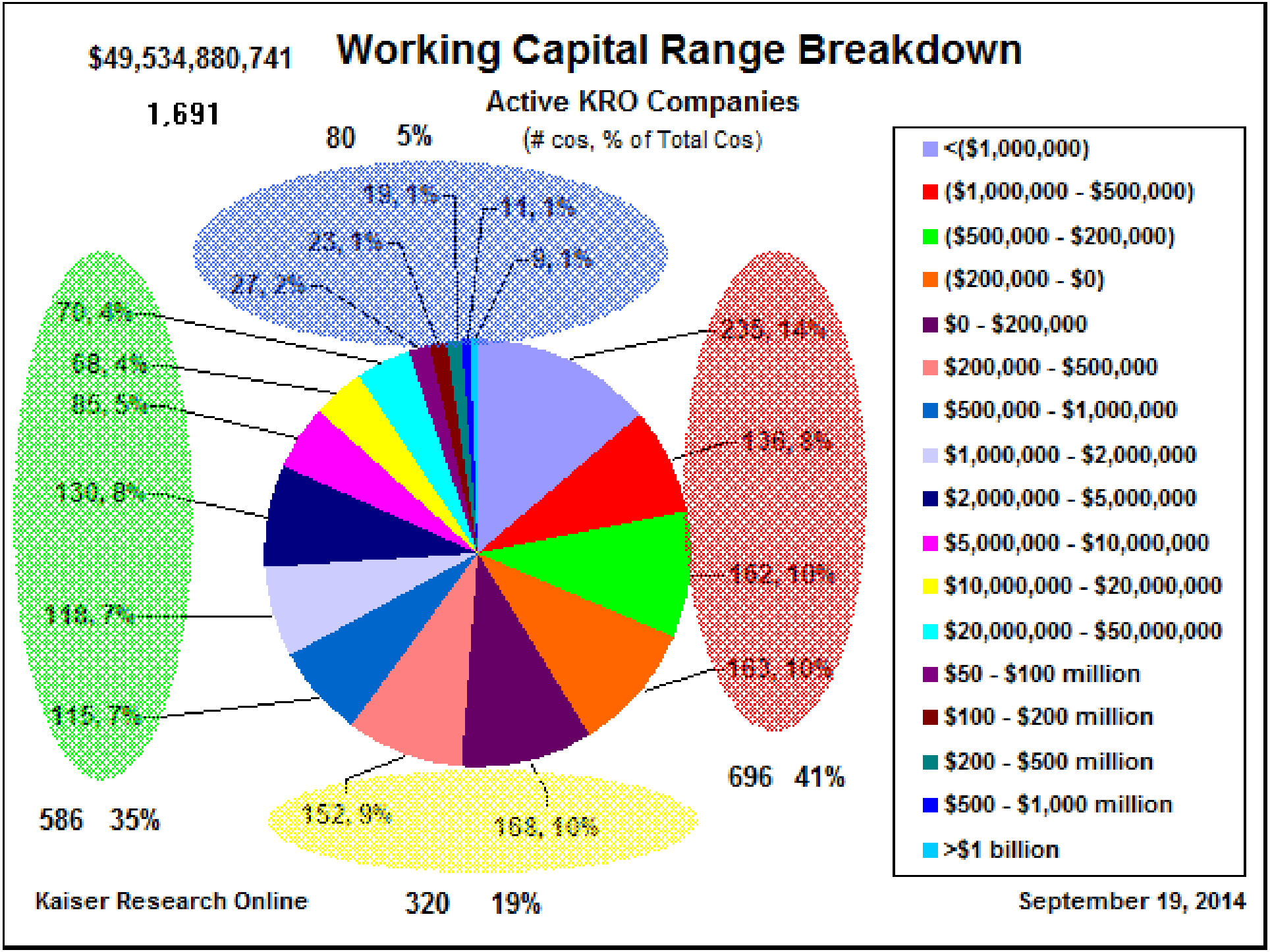
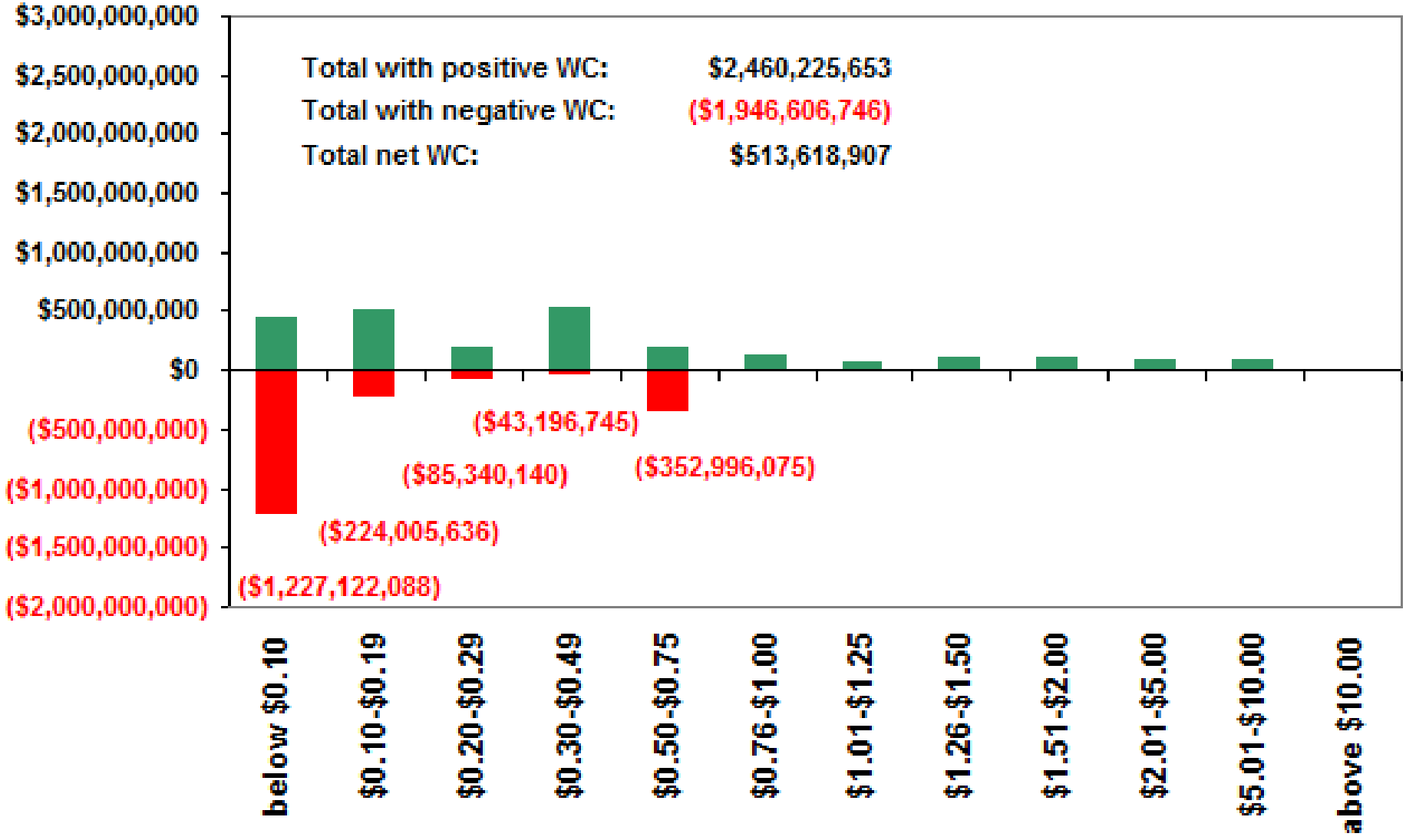
Under Cover Exploration


$49,534,880,741
Working Capital Range Breakdown
1,691
Active KRO Companies
(# cos, % of Total Cos)
80 5%
19, 1%
11, 1%
23, 1%
9, 1%
27, 2%
70, 4%
68, 4%
85, 5%
130, 8%
118, 7%
115, 7%
235, 14%
136, 8%
162, 10%
163, 10%
696 41%
586 35%
152, 9%
168, 10%
320 19%
<($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
Kaiser Research Online
September 19, 2014

1,354 TSXV KRO Working Capital

(Positive & Negative Working Capital tabulated separately)



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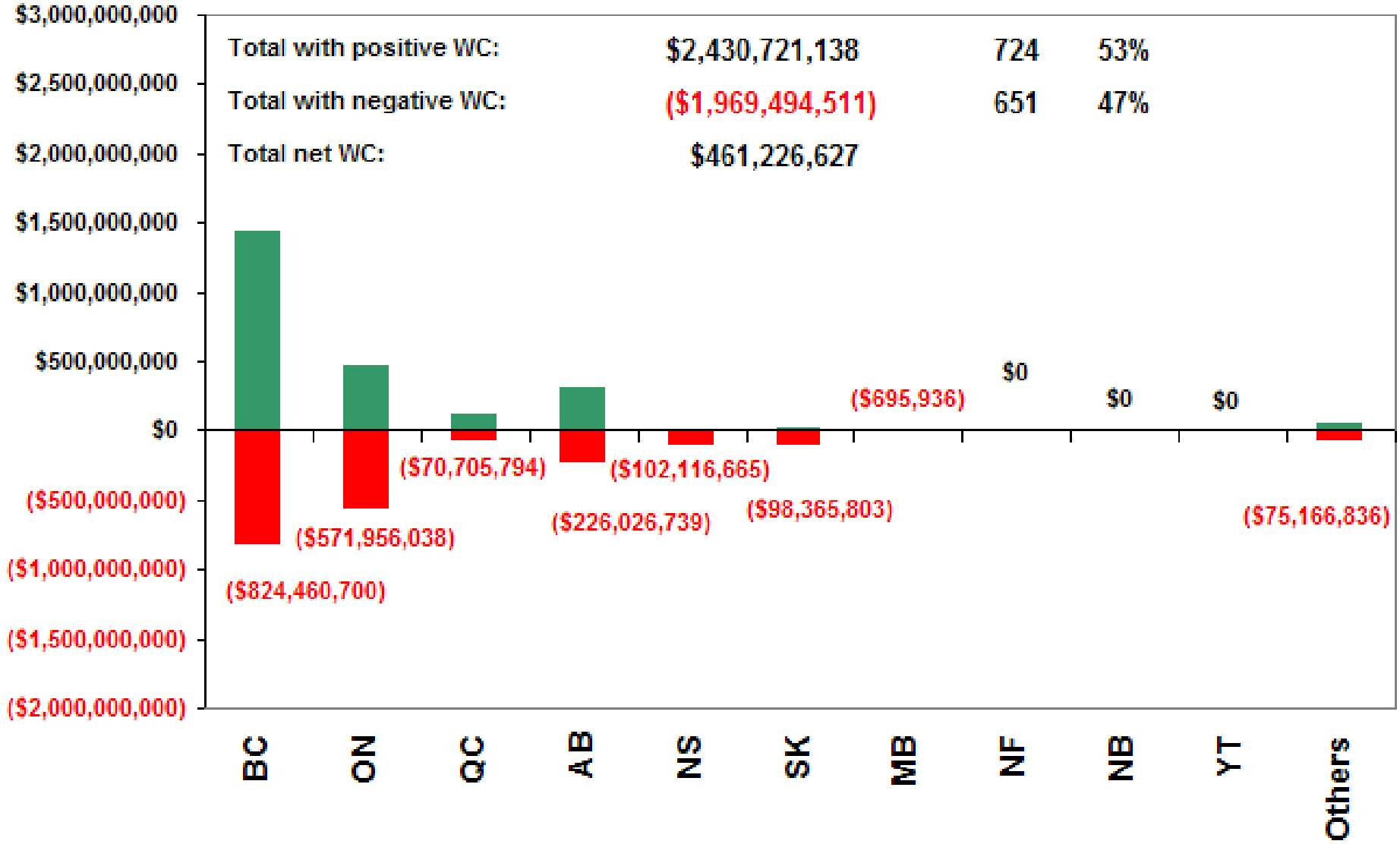
September 19, 2014

1,375 TSXV KRO Working Capital as of latest filing

(Positive & Negative Working Capital tabulated separately)



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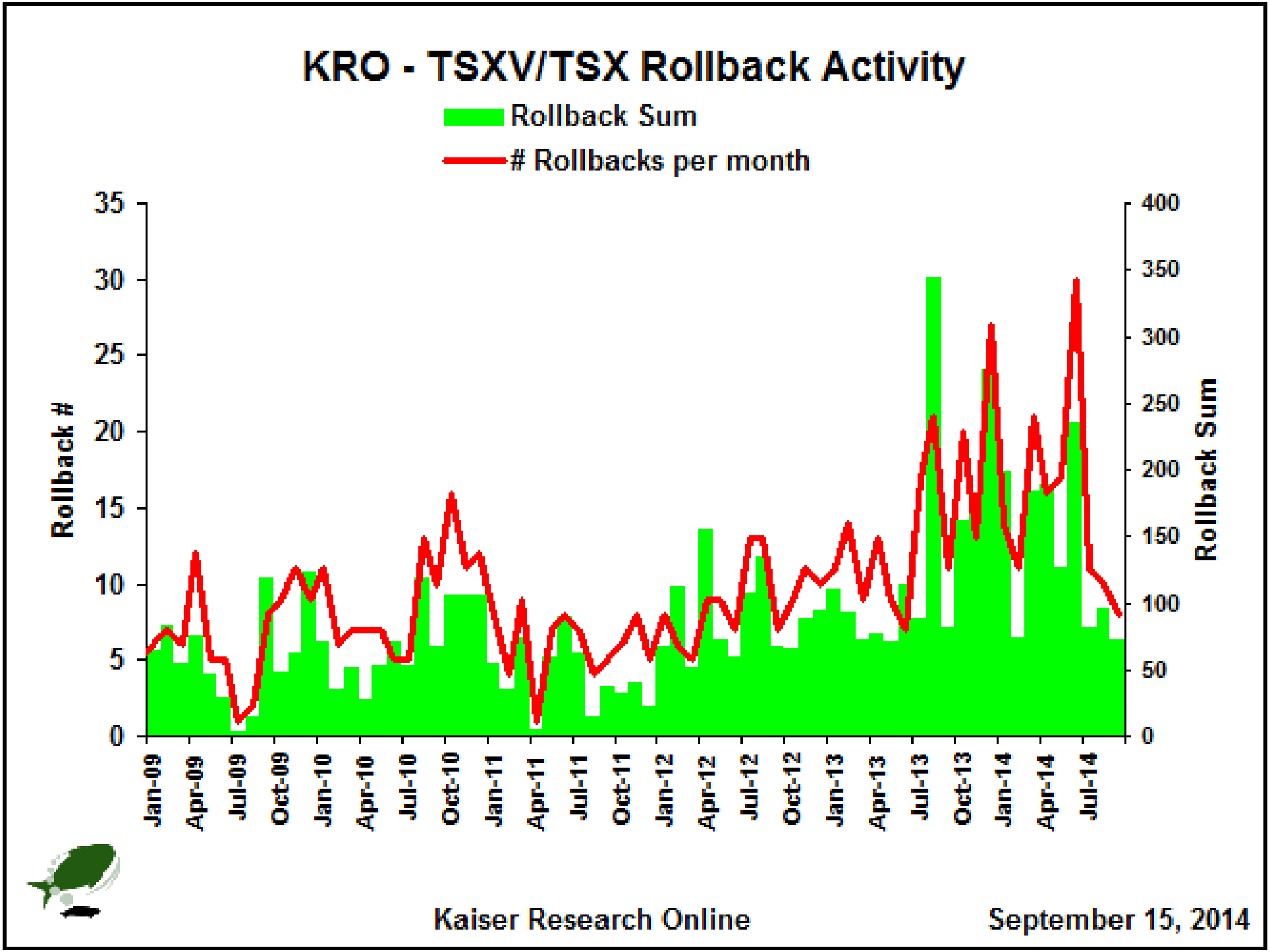
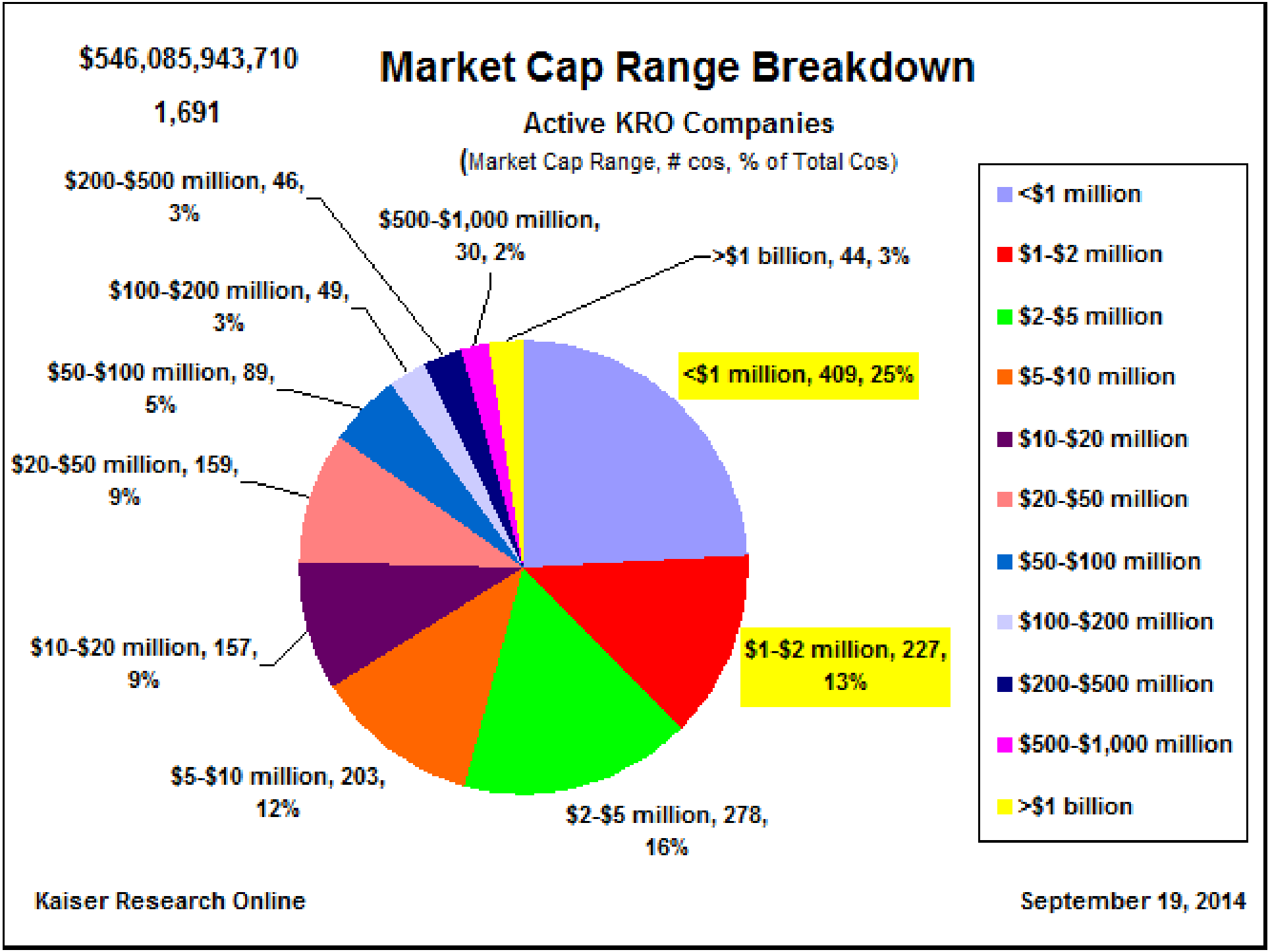
Includes delisted & suspended during period

September 15, 2014


KRO - TSXV/TSX Rollback Activity
Rollback Sum
Rollbacks per month
Rollback #
Rollback Sum
35
30
25
20
15
10
5
0
400
350
300
250
200
150
100
50
0
Jan-09
Apr-09
Jul-09
Oct-09
Jan-10
Apr-10
Jul-10
Oct-10
Jan-11
Apr-11
Jul-11
Oct-11
Jan-12
Apr-12
Jul-12
Oct-12
Jan-13
Apr-13
Jul-13
Oct-13
Jan-14
Apr-14
Jul-14
Kaiser Research Online
September 15, 2014


$546,085,943,710
1,691
Market Cap Range Breakdown
Active KRO Companies
(Market Cap Range, # cos, % of Total Cos)
$200-$500 million, 46, 3%
$500-$1,000 million, 30, 2%
>$1 billion, 44, 3%
$100-$200 million, 49, 3%
$50-$100 million, 89, 5%
<$1 million, 409, 25%
$20-$50 million, 159, 9%
$10-$20 million, 157, 9%
$1-$2 million, 227, 13%
$5-$10 million, 203, 12%
$2-$5 million, 278, 16%
<$1 million
$1-$2 million
$2-$5 million
$5-$10 million
$10-$20 million
$20-$50 million
$50-$100 million
$100-$200 million
$200-$500 million
$500-$1,000 million
>$1 billion
Kaiser Research Online
September 19, 2014

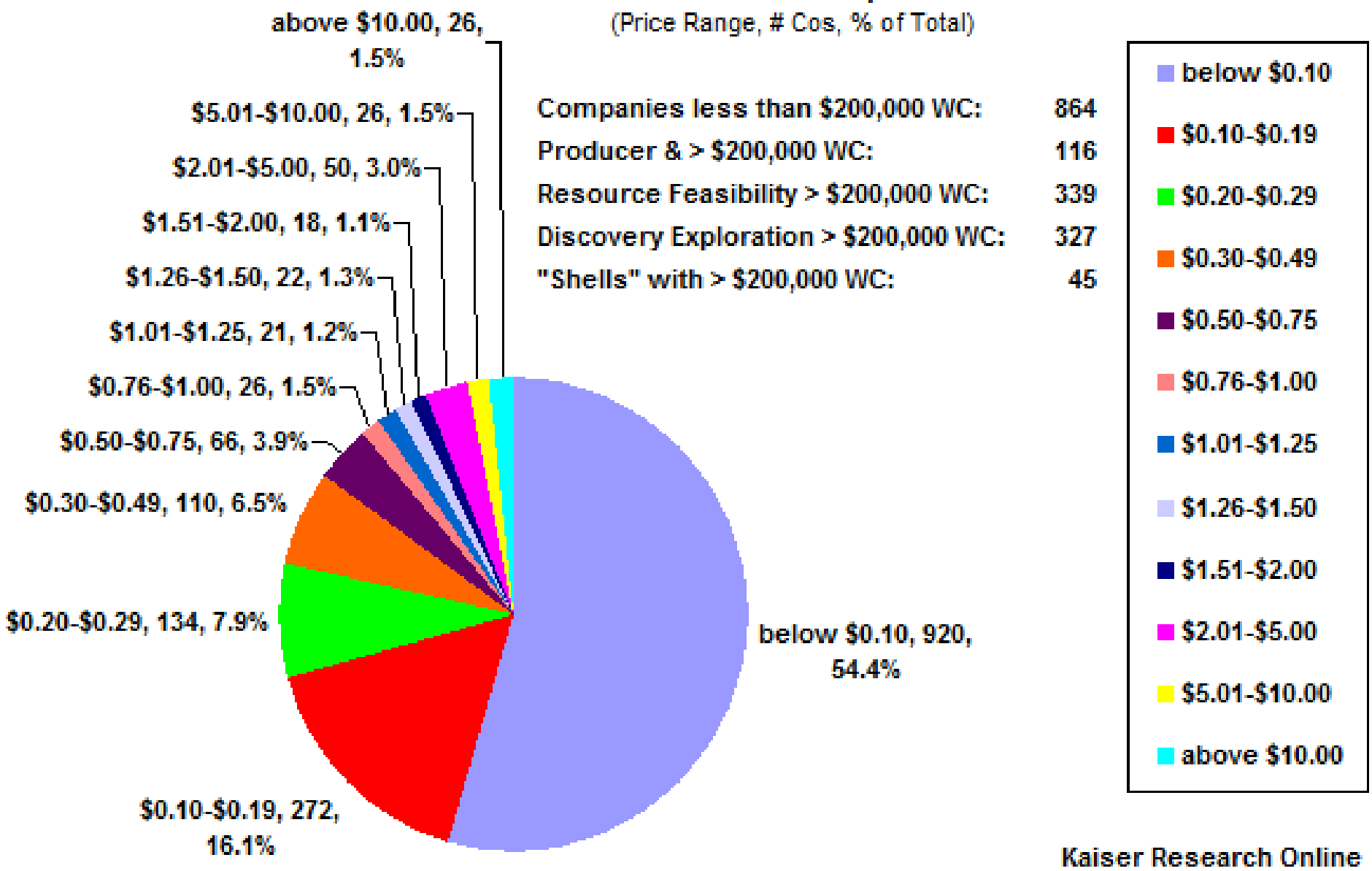
1,691 Price Range Breakdown

Active KRO Companies

(Price Range, # Cos, % of Total)

September 19, 2014

Companies less than $200,000 WC:	864
Producer & > $200,000 WC:	116
Resource Feasibility > $200,000 WC:	339
Discovery Exploration > $200,000 WC:	327
"Shells" with > $200,000 WC:	45



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Structural Industry Issues

The Rocking Chair Nation Agenda

- **Problem:** The establishment bank agenda of turning Canadian investors into the equivalent of the human pods in the Matrix from whom the banks feed themselves through the fee based 20-2 asset management model and the fees underlying the structured products they engineer and stuff into the accounts in the name of "suitable" risk adjusted returns derived from what is at best the random walk delivered by market indices.

- Using client profiling and the "suitability" concept in the name of "investor protection" to discourage stock picking by both advisors and clients.

- The eventual reduction of the "investment advisor" to a schmoozer of high net worth clients and enforcer of profile updating with portfolio management done by algorithm.

- **Solution:** open a discount brokerage account (TFSA?), divide capital between cash equivalent securities and personally picked high risk securities in a sector one endeavors to understand.

Structural Industry Issues

Flash Boys

- **Problem:** The elevation of profits from volatility trading as the basis of markets, turning a price discovery mechanism into a zero sum video game that plays as long as they can harvest real capital inflows.

- High Frequency Trading: digital front-running and market manipulation.

- Algo Prop Trading & Short Selling on a down-tick: the great betrayal by the brokerage industry.

- Multiple Order Execution Platforms: undermining market transparency and fairness through fragmentation in the name of "competition"

- **Solution:** introduce a tiny fee per submitted order that goes 100% to finance a non-profit universal first-come-first-serve order execution utility with commitment privacy that restores the role of the market as a unified price discovery mechanism. Penalize day trading accounts with end of day short positions not covered with borrowed stock.

Structural Industry Issues

The Funding Bottleneck

- **Problem:** The increasing difficulty of getting risk capital into corporate treasuries because of "investor protection" schemes such as the "accredited investor" rule, the demise of the broker as stock picker, the marginalization of third aprty "finders" and the non-uniformity of private placements.

- Accredited Investor Definition: deliberate starvation of the resource juniors

- Retail Investor Exemption: dead on arrival.

- **Solution:** Acknowledge that all investing is a form of gambling, justify the regulatory reporting burden imposed on companies by allowing individuals to invest as much capital as they choose through "private placement" treasury stock purchases, regardless of "net worth", and celebrate "slow gambling" as an alternative to "clever trading".

Structural Industry Issues

Regulatory Overkill

- **Problem:** Financial reporting obligations are sledgehammers that massage the rumps of Wall Street's elephants but when imposed on resource juniors waste scarce capital to make it more difficult for investors to understand the financial condition of the juniors (ie fictitious accounting liabilities). The technical disclosure rules insist on a tapestry of near infinite dots while forbidding any effort to connect the dots so that investors can see what the junior hopes to accomplish. The result is to intimidate rather than empower the investor.

- **Solution:** Standardize the financial reporting format so that financials are submitted online as structured data which algorithms can analyze for internal historical coherence, provide online tutorials to educate the public, and enable free public access to this data so that it can apply its own analytical tools. Automate the "analysis" of submissions so that the junior quickly sees the "deficiencies", and stop turning fresh out of school bureaucrats into nitpicker tyrants.

Structural Industry Issues

Death of the Rumor Mill

- **Problem:** The deregulation of the brokerage industry and the emergence of the internet has wiped out the existence of network hubs which historically channeled speculative buying by offering an information edge. Now everything is assumed to be publicly known and what is whispered is easily squelched. The mystery of the junior resource sector is gone. Nobody thinks they have an edge, and all rallies driven by new capital inflows are crushed by an army of algo traders who have pessimism on their side. As far as exploration is concerned, the junior resource sector is currently dead as a gambling forum for retail and sophisticated investors, and until there are plausible macroeconomic arguments for sustainable metal price uptrends, allowing for bets on their extent and duration, the resource juniors are off limits to institutional capital.

- **Solution:** Implement a perception capture system that harnesses the wisdom of crowds in a manner that is self-regulating. **Channel the wisdom of crowds to create an online system that facilitates outcome visualizations and captures market expectations.**

Mine Supply Speculation focuses on Future Cash Flow from a Depleting Asset: A Mine is an Annuity

Discounted Cash Flow Model: What is an orebody worth?

$$\sum_{n=1}^{m} \frac{\text{Annual Cash Flow}}{(1 + \text{Discount Rate})^n}$$

Less Capital Cost

n = year of cash
m = mine life (years of mining)

Annual Gross Revenue	
less	**Operating Costs**
=	**Operating Profit**
less	**Taxes**
=	**After Tax Cash Flow**

NPV

NPV(rate,value1,value2,...)

Returns the net present value of an investment based on a discount rate and a series of future payments (negative values) and income (positive values).

Key Cash Flow Model Inputs

Revenue	Cost	Risk
• Tonnage • Grade • Recovery • Payable • Mining Rate • Metal Price	• Mining • Processing • Royalties • Concentrate Shipping • G & A • Initial Capital • Sustaining Cost • Tax Rate • Depreciation	• Environmental Permitting • Social License • Title • Tax • Geopolitical • Technical • Infrastructure • Management
NSR / tonne	Cash Cost / metal unit All-In Cost / metal unit $ Cost / tonne	Discount Rate %

Build your deposit, mine it, and share it!

Builder: JKaiser | BuildName: Colorado North Rok | Build Status: No public BP yet | BuildPlanName: North Rok Test | Close Form

Main | Deposit | Mining | Cost | Revenue | Risk

BPDepositSourceID: 0

BPTonnageID: 0

BPTonnage: 300,000,000

Validate Deposit Choices

Tonnage
- None
- Very Unsure
- Somewhat Unsure
- Somewhat Sure
- Very Sure

BPTonnageNote is public:

	Metal 1	Metal 2	Metal 3	Metal 4
	Copper (%)	Gold (g/t)	Molybdenum (%)	Blank ()
Grade:	0.60%	0.60	0.00	0.00
	None	None	None	None
	Very Unsure	Very Unsure	Very Unsure	Very Unsure
	Somewhat Unsure	Somewhat Unsure	Somewhat Unsure	Somewhat Unsure
	Somewhat Sure	Somewhat Sure	Somewhat Sure	Somewhat Sure
	Very Sure	Very Sure	Very Sure	Very Sure

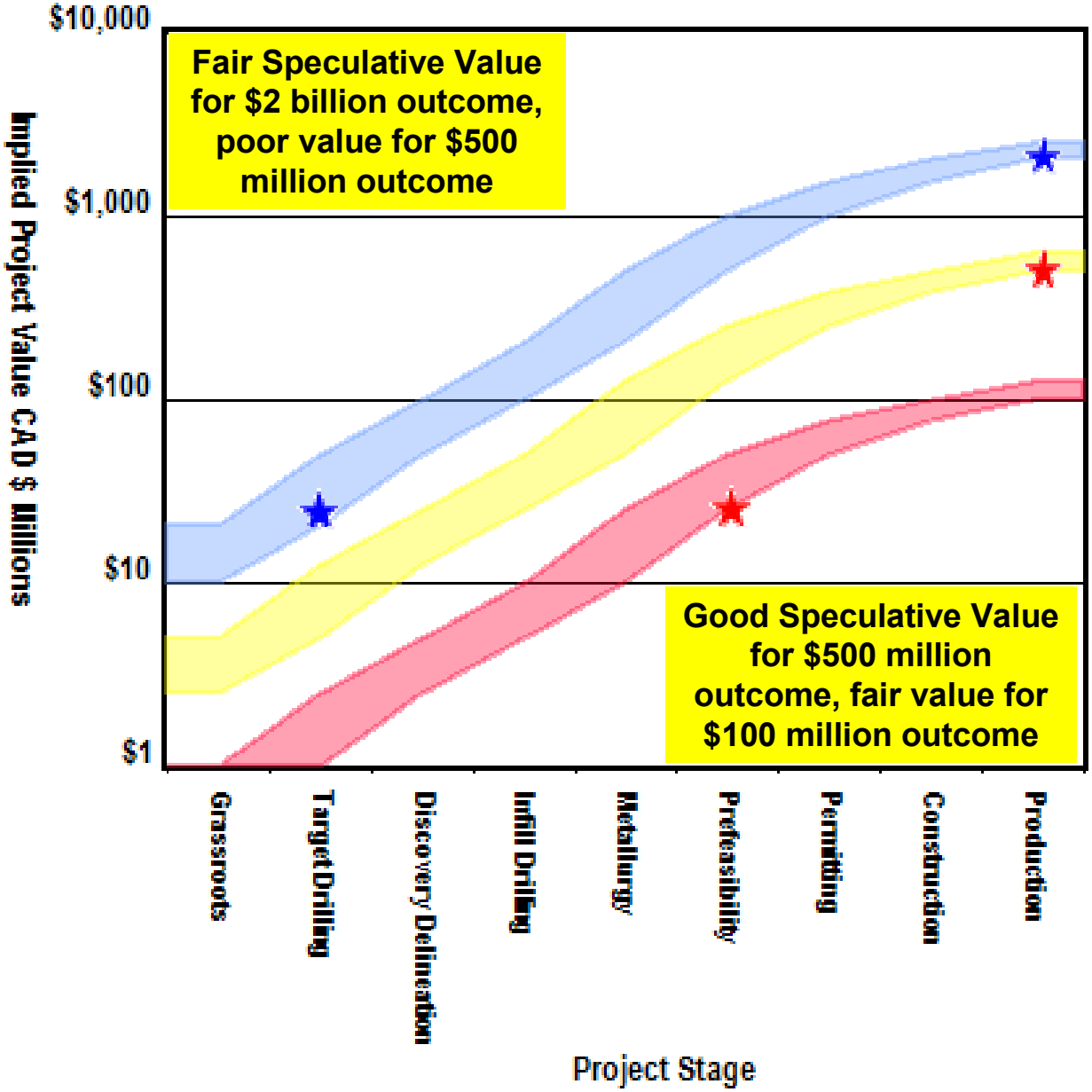
(Screenshot of prototype under development by Kaiser Research Online)

Rational Speculation Model – Uncertainty Ladder for Metal Projects

Exploration Cycle Stages		Success Probability		Outcome Target Fair Value Channels ($ Millions)		
		Chance	Leverage	$100	$500	$2,000
1	Grassroots	0.5-1%	100-200	<$1	$2.5-5	$10-20
2	Target Drilling	1-2.5%	40-100	$1-2.5	$5-12.5	$20-50
3	Discovery Delineation	2.5-5%	20-40	$2.5-5	$12.5-25	$50-100
4	Infill Drilling	5-10%	10-20	$5-10	$25-50	$100-200
5	Metallurgy	10-25%	4-10	$10-25	$50-125	$200-500
6	Prefeasibility	25-50%	2-4	$25-50	$125-250	$500-1,000
7	Permitting, Marketing & Feasibility	50-75%	1.3-2	$50-75	$250-375	$1,000-1,500
8	Construction	75-100%	1	$75-100	$375-500	$1,500-2,000
9	Production	100%		$100	$500	$2,000

Note: the fair value range in each exploration stage row for each outcome target column is calculated by multiplying the target value by the success chance. ie stage 4 target $500: 0.05 x $500 = $25, 0.1 x $500 = $50

Mineral Exploration Cycle



Dream Target Channels

- $100 million Dream Target
- $500 million Dream Target
- $2 billion Dream Target

The speculative value depends on the stage of the project, the value implied by the market, and the visualized outcome.

Rational Speculation Model

A formal system for valuing a spec stock

Three Steps

- Outcome Analysis – what is the potential fundamental outcome and what would it be worth?
- Probability Analysis – where in the exploration cycle is the project and what is it “worth” now?
- Risk-Reward Analysis – does the market price offer a good, fair, or poor bet?

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