The Revival of Natural Resources:

How Did we Get Here?
When Will we Escape the Downturn?
Metals to Follow?
Gold?

Michael A. Berry, PhD

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Association of the Quebec Mineral Exploration
Montreal, Quebec

mberry@discoveryinvesting.com

Recovery and Revival: Facts and Issues

The question is not IF; the questions are WHEN, HOW and STRENGTH.

First the Bad News: We are not poised today to renew the 2000 to 2007 Commodity Supercycle.

Canada's world class natural resource based economy is reeling.

A national election could impact Canadian natural resource policy.

The Natural Resource Industry Needs Global Economic Growth “Escape Velocity”

and

Global Supply / Demand Visibility

Global Monetary Policy?

Worry that global deflation is now a serious possibility threatening stable banking and government policy.

After 82 months of zero interest rates and $7 trillion in QE, the US Federal Reserve is not confident enough to raise rates.

The much stronger US dollar has already tightening the US economy.

Disinflation, or worse, deflation will damage commodity markets further.

Canadian Mining and Extractive Technology Predominance Threatened

From 2000 to 2006 we experienced an unprecedented global commodity boom – **excess global capacity and supply came on line**.

In both hard and soft commodities Canada has been the world leader in transformative technological developments related to metals, extractive technologies and agriculture.

The Canadian exploration and development sector was at the forefront of global value creation. Canadian capital markets obliged.

The Game Has Now Changed : Canadian Investors must now focus on the entire technological space of the World's NEW supply chain requirements.

Quebec’s Necessary New Strategy Within this Global Dynamic

To sustain its place in the world’s pantheon of resource developers Canadian provinces must lead in development the NEW supply chain strategies beginning in the resource sector.

Quebec has half a century developing the world’s finest resource infrastructure.

Quebec hosts many of world’s most valuable resources. QUEBEC'S LEGACY MUST BE MAINTAINED AND ENHANCED

Government and special interests must be included in the new organization. Legislators and environmentalists must become involved partners!!!

Commodity Demand Suffers Globally
The BRICS and other
Emerging Economies Suffer

Credit Default Swap Rates of Emerging World skyrocket

Inflation declines

The Rest of the World is Frantically Easing

Norway cut rates last week for the second time this yr.

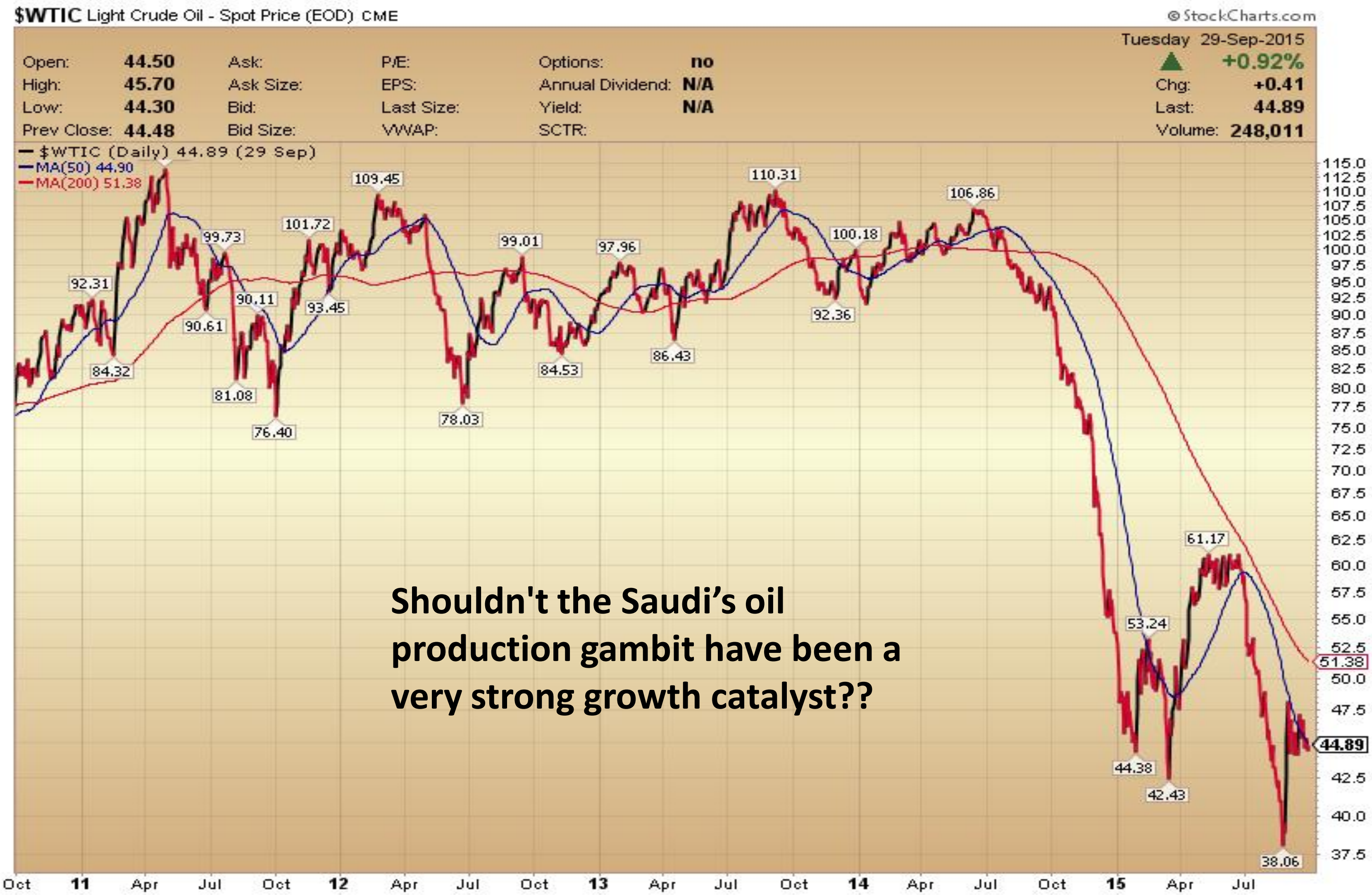
Indian industry seeks easing as inflation **declines 7.6% to 3.5%**.

Israel eased in June.

41 countries have recently devalued thru rate cuts.

Emerging countries do not want a US rate increase.
All seek own currency devaluation.

Is The Primary Villain Oil???
Monumental 60% decline Q4 2014.
The US Now the World's Swing Producer



Shouldn't the Saudi's oil production gambit have been a very strong growth catalyst??

Discussion of the New World of OIL

- Saudis have trumped themselves and damaged Canadian oil wealth

- What it means to Canada (percentage of oil in Canadian exports and GDP)

- What it means to the world

Canadian Juniors Suffer Even Further

Commodities Bloomberg

BUT

The millennial commodity super cycle is on hold (or finished) – while inflationary expectations are declining

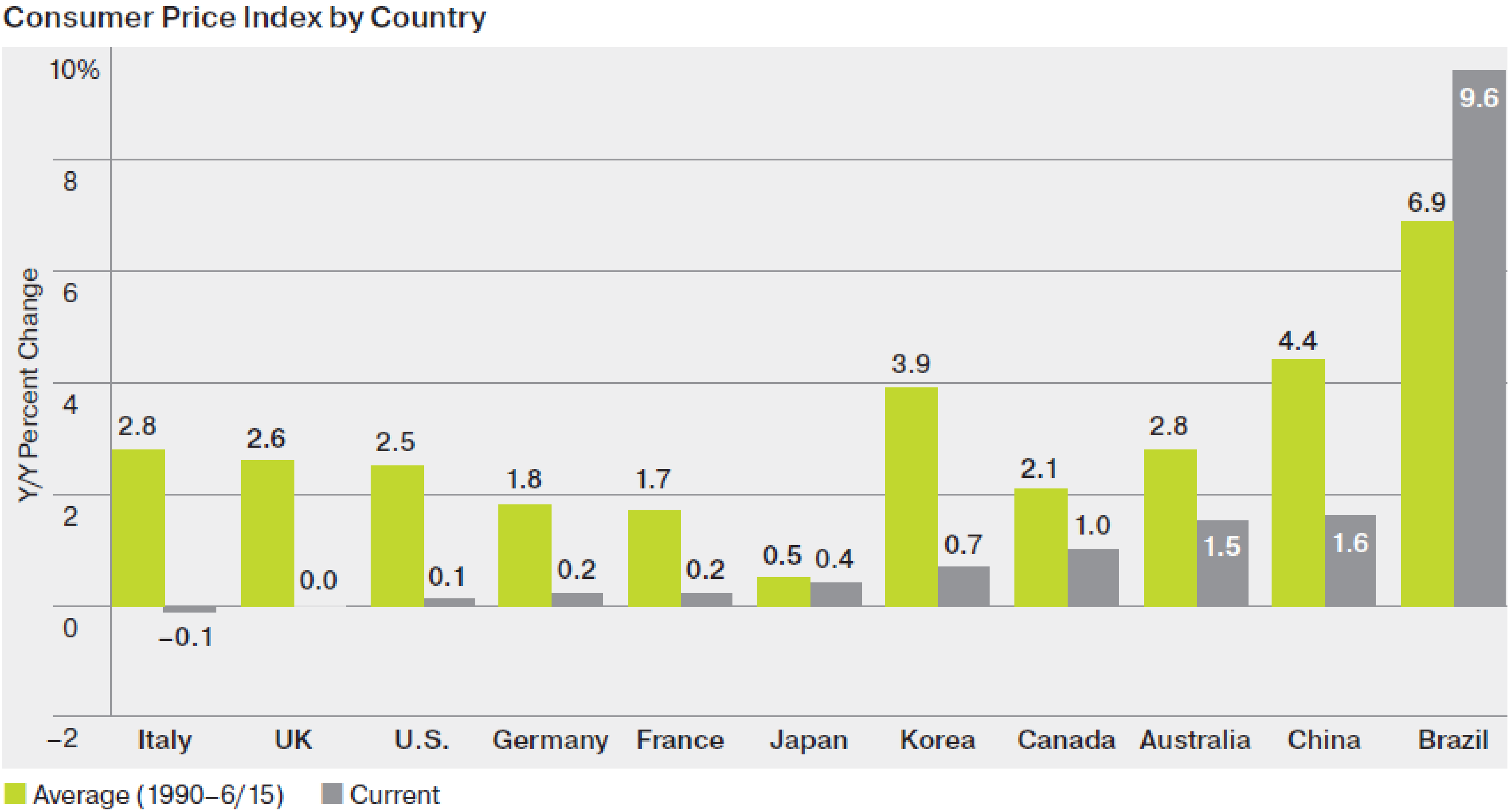
and

excess supply / insufficient demand is clearly on the minds of the world's central bankers, now the global capital markets and management of the mining industry.

US Inflation (CPI) Picture September 16

1.8% - Not Enough for the Fed

Global Disinflation: Almost Everywhere – Even China and India



Source: Bloomberg, 7/31/15. Brazil's average is from 1995–6/30/15.

Are We in a New “Risk-ON” World in Which the World’s Bankers are Now in control???

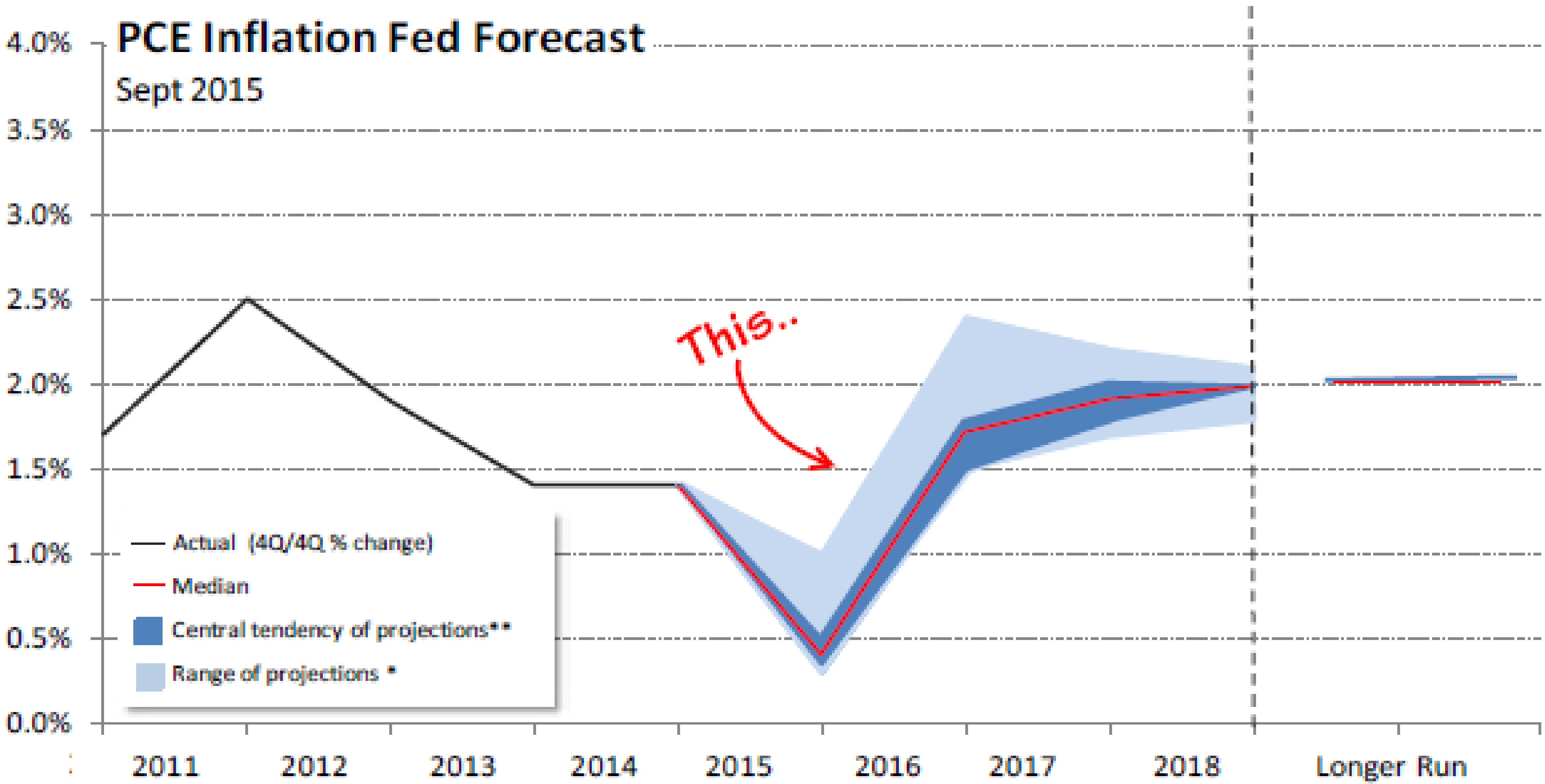
What is **"Normal”** Monetary Policy?

Over Half a Century (1957-2007)
the Average US Fed Funds Rate
has been

5.7%

Range between 1% and 19%

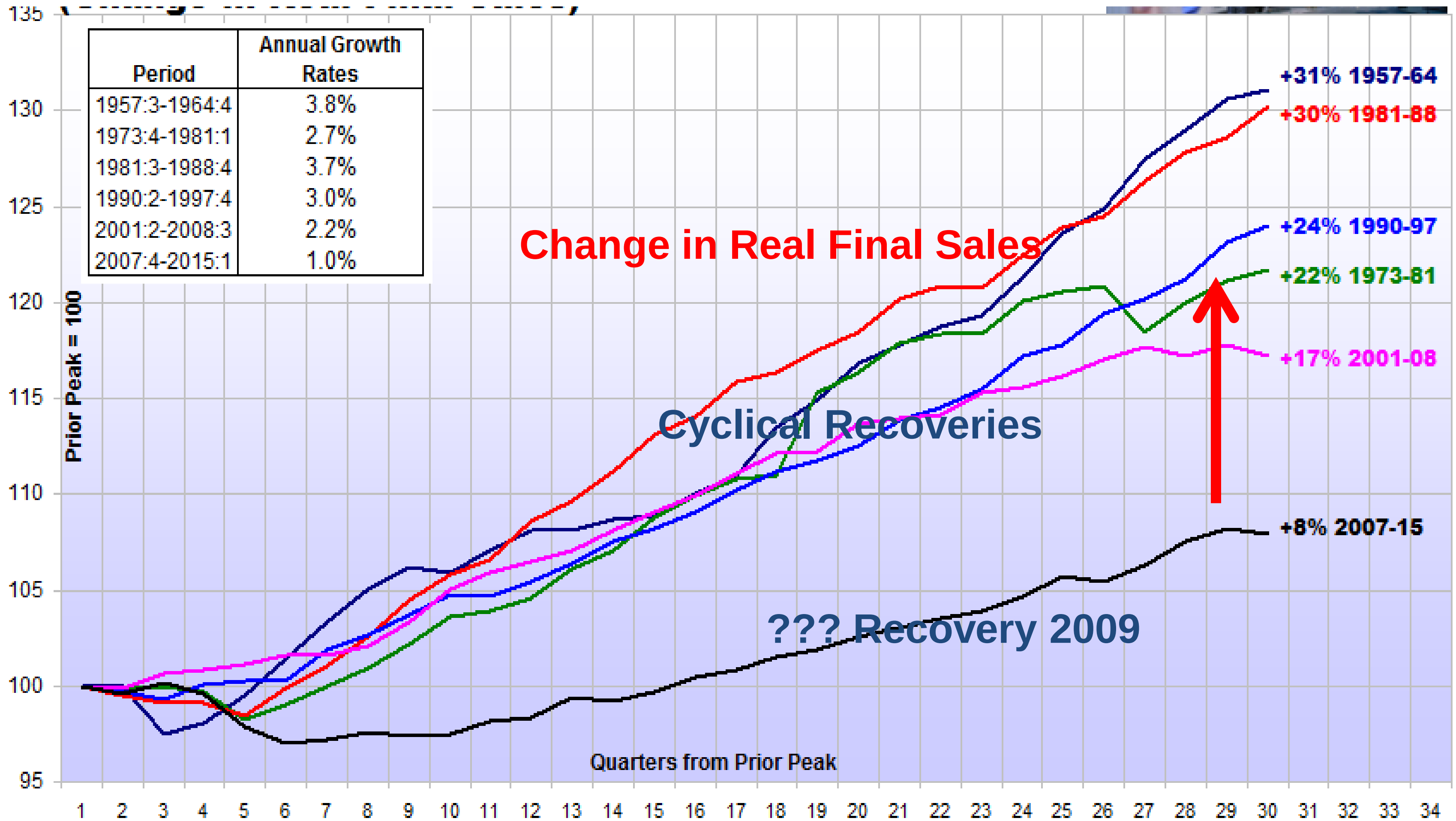
Fed's Future Inflation "Hockey Stick" 4Q 2018: A Rare and Unlikely(?) Phenomenon



Source: Federal Reserve FOMC, Sept 2015

* Top of the range is the highest projections for specific year while the bottom of the range is the lowest projection.
**The central tendency excludes the three highest and three lowest projections of the range in each year.

The Poorest Recovery in Half A Century



Period	Annual Growth Rates
1957:3-1964:4	3.8%
1973:4-1981:1	2.7%
1981:3-1988:4	3.7%
1990:2-1997:4	3.0%
2001:2-2008:3	2.2%
2007:4-2015:1	1.0%

Zero Rates and Massive Money Printing (Quantitative Easing)

- No recovery – growth below escape velocity

- Inflation (as defined by the Fed) below target

- Secular not cyclical recovery:

  “Global Secular Stagnation.”

Dr. Summers' View
Secular Stagnation NOT Cyclical Recovery

"I would like nothing better than to be wrong as Alvin Hansen was with respect to secular stagnation in 1938.

It may be that **growth will soon take hold in the industrial world and allow interest rates and financial conditions to normalize**.

If so, those like Ben (Bernanke) who judged slow recovery to be a reflection of temporary headwinds and misguided fiscal contractions will be vindicated and fears of secular stagnation will have been misplaced."

Summers, Cont'd

But throughout the industrial world the vast majority of the revisions in growth forecasts have been downwards for many years now.

So, I continue to urge that it is worth taking seriously the possibility that we face a chronic problem of an excess of desired saving (ed. insufficient demand) relative to investment.

If this is the case, **monetary policy will not be able to normalize**, there will be a continuing need for expanded public and private investment, and there will be a need for global coordination to assure an adequate level of demand and its appropriate distribution.

Macroeconomists can contribute by moving beyond their traditional models of business cycles to contemplate the possibility of secular stagnation.

Deflation: The Good and Bad

Good Deflation: Excess Supply

- Globally we clearly see **excess supply** in the commodity markets. Oil and copper inventories at an all time high. 30 to 50 % price declines.

Bad Deflation: **Deficient Demand**

Global (except perhaps the US) demand is declining. The world's central bankers are "easing" to avoid deflation or deflationary expectations

We may have BOTH types of Deflation. Implications for effective Monetary policy?.

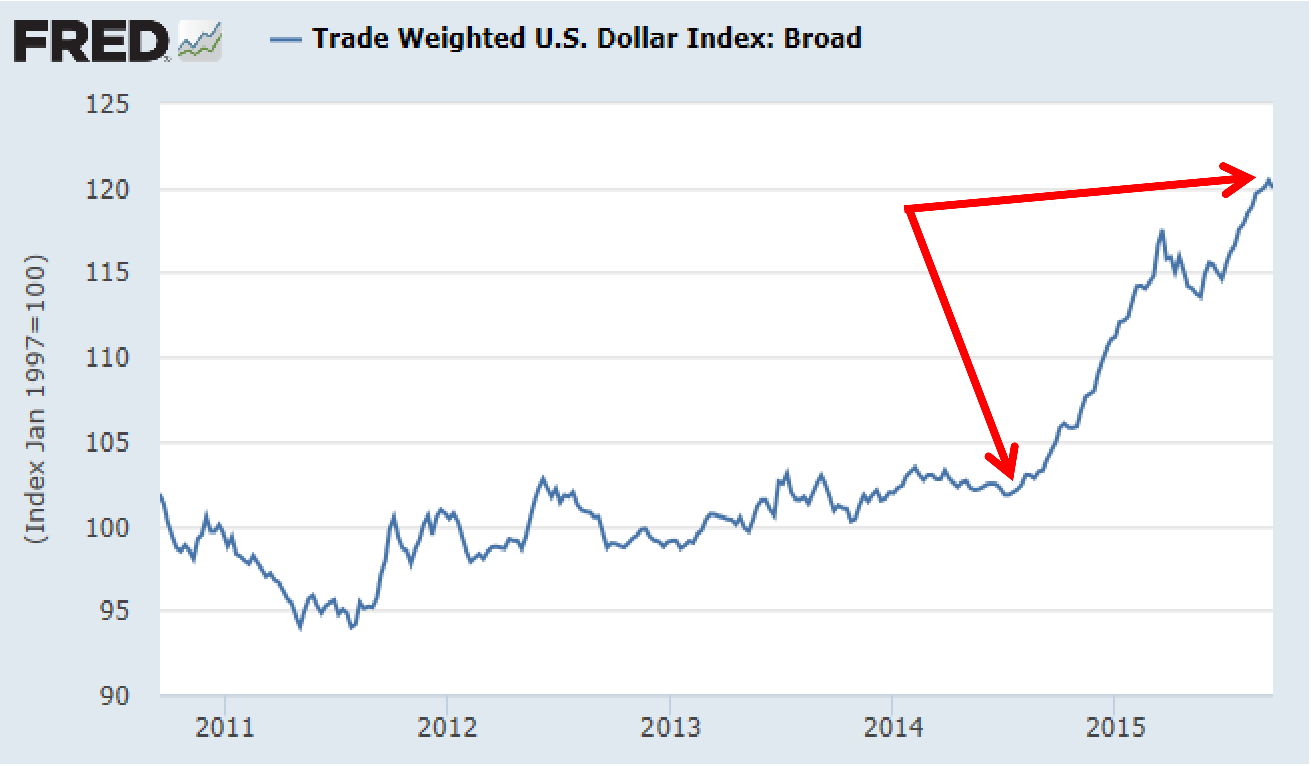
The Stronger Greenback Affects Canada Directly

June 2014 to September 16, 2015

The trade-weighted dollar strengthened 19 % since June 2014.

EC Bankers buy sovereign debt. Japan extends record stimulus.

A stronger greenback will be the channel through which the rest of the world feels the effects of a tighter US Monetary policy.



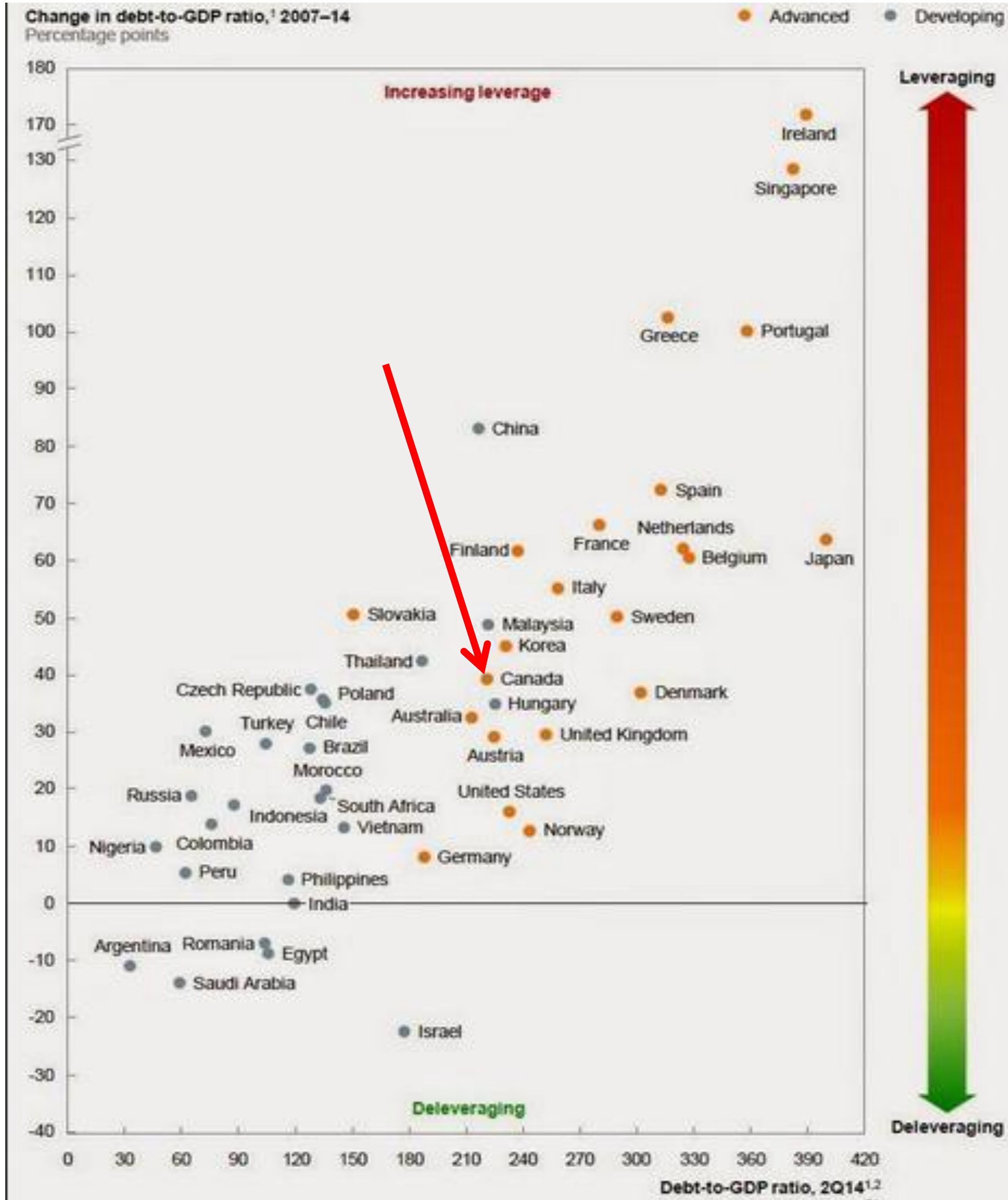
Global Equity Losses $11 trillion in Q3 2015

- Only Sector up was the Global Utility Sector.
- Commodity stocks (large caps particularly) suffered horrendous losses – both large cap and small down on average 50 to 60% over 3 years.
- CDNX down 50% between July 2014 and Sept. 2015.

Loonie Declined to 74.6 on Poor Retail Sales and much stronger US Dollar

Another Headwind to Global Growth:

The World is Still Highly Levered, So is Canada:



The Great Global Commodity Party and the 2015 Hangover

- Directors and management of large cap mining stocks went crazy from 2008 to 2011 levering up through debt issuance and M&A.

- This great debt hangover hovers over the natural resource industry

- Barrick, Freeport, Trafigura, Glencore and many Mid caps and Juniors.

- Now the Big metal producers and trading companies are selling everything they have to reduce debt.

Capital Markets

- Financing the world's commodity markets.
- Where has the money gone to Finance greenfield exploration and development?
- This is a **RISK-OFF world** until escape velocity, inventory is worked off and deleveraging progresses sufficiently.

Are We At The Bottom?

- Yes we are close but the question remains as to how long the global metals markets will languish in over supply.

- Timing will be a function of current over supply and deleveraging (which will allow for escape velocity growth).

Over Supply, Over Capacity and Insufficient Global demand

- Chinese Demand is the key unknown here. Will China become the new Consumer of the globe? How soon?

- China’s Monetary policy is the weak point in the decision tree.

The Epicenter of Risk is China

The PBOC does not have a sense for communicating the devaluation of the Yuan.

They miscommunicated in September. Equity markets reacted badly.

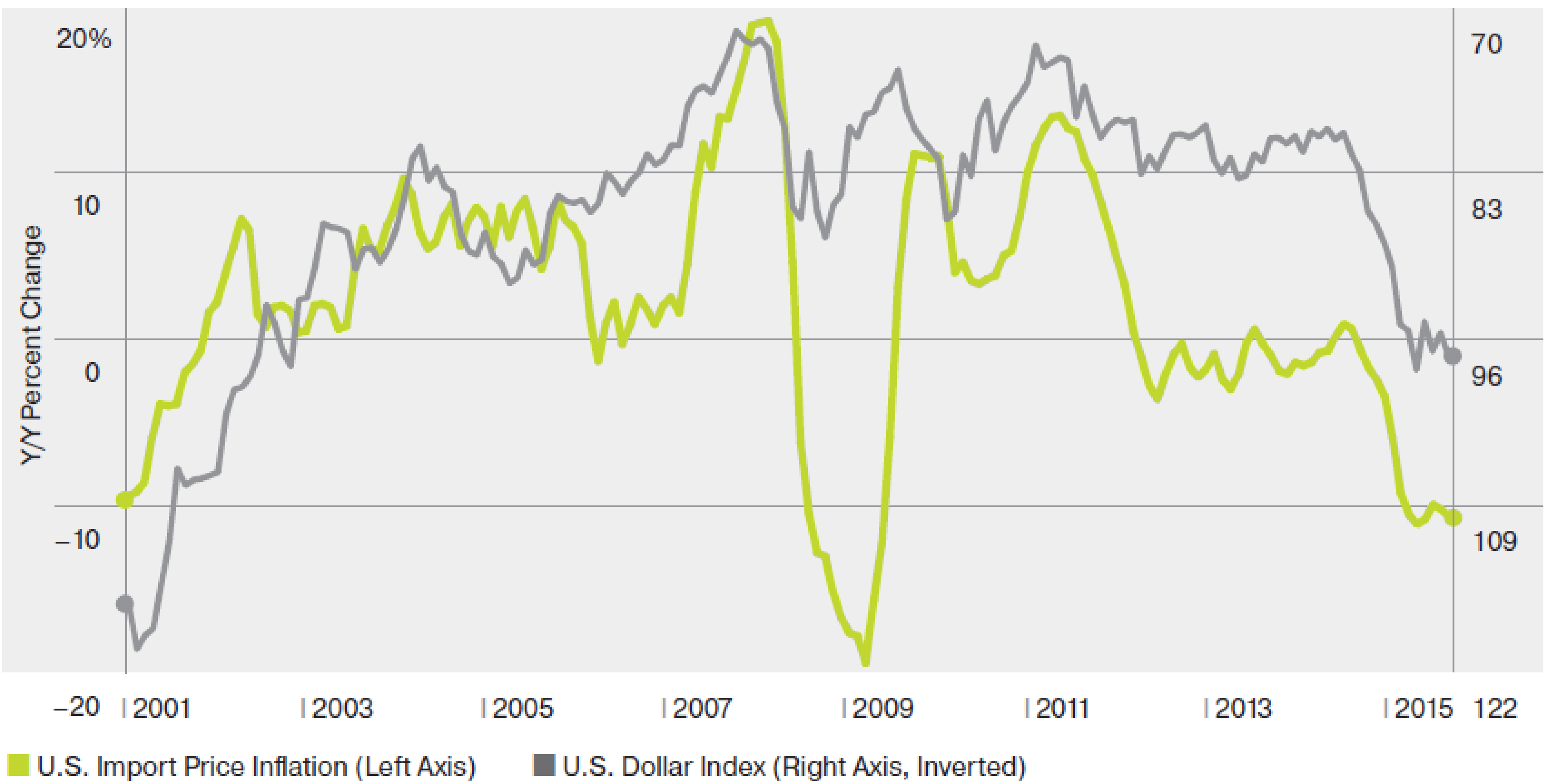
What is the real growth rate in China; how much more devaluation is required and how will it be communicated?

Deflationary Pressures in China

Sources: Bloomberg, The People's Bank of China, National Bureau of Statistics of China, 7/31/15. M2 Money Supply measures the total amount of money in circulation in a country. 12-Month Lead is displayed to more clearly show the relationship between M2 and inflation by moving M2 forward by 12 months.

Impact of China's Yuan Devaluation

U.S. Dollar and U.S. Import Price Inflation



The US is Now Importing Deflation from the Rest of the World

China allows the Yuan to devalue – then says it won't happen again – **IT WILL.**

Almost all other countries have also devalued thru interest rate cuts. G20 meeting in June blessed the moves as the New Normal

US savings rates are up, growth is minimal and below escape velocity economic growth is evident.

Canada slides into a natural resource induced recession.

What About the Mining Industry

Employment fell 12% in Q3 2015 in the US mining industry. The impact of lower oil finally being felt.

Marginal projects are being put on care and maintenance.

Forced deleveraging in the large cap sector is the rule of the day. Barrick , Glencore and Freeport McMoran come to mind

Greenfield exploration slowing significantly eventually a self correcting mechanism.

Glencore: Stock down 73%, says business is 'robust'

To reduce debt levels to $27 billion by Q4 2016. An over-step with mergers such as Xstrata?

But Not Only Glencore: Rio and BHP Continue to Flood the Markets as their Equities Decline

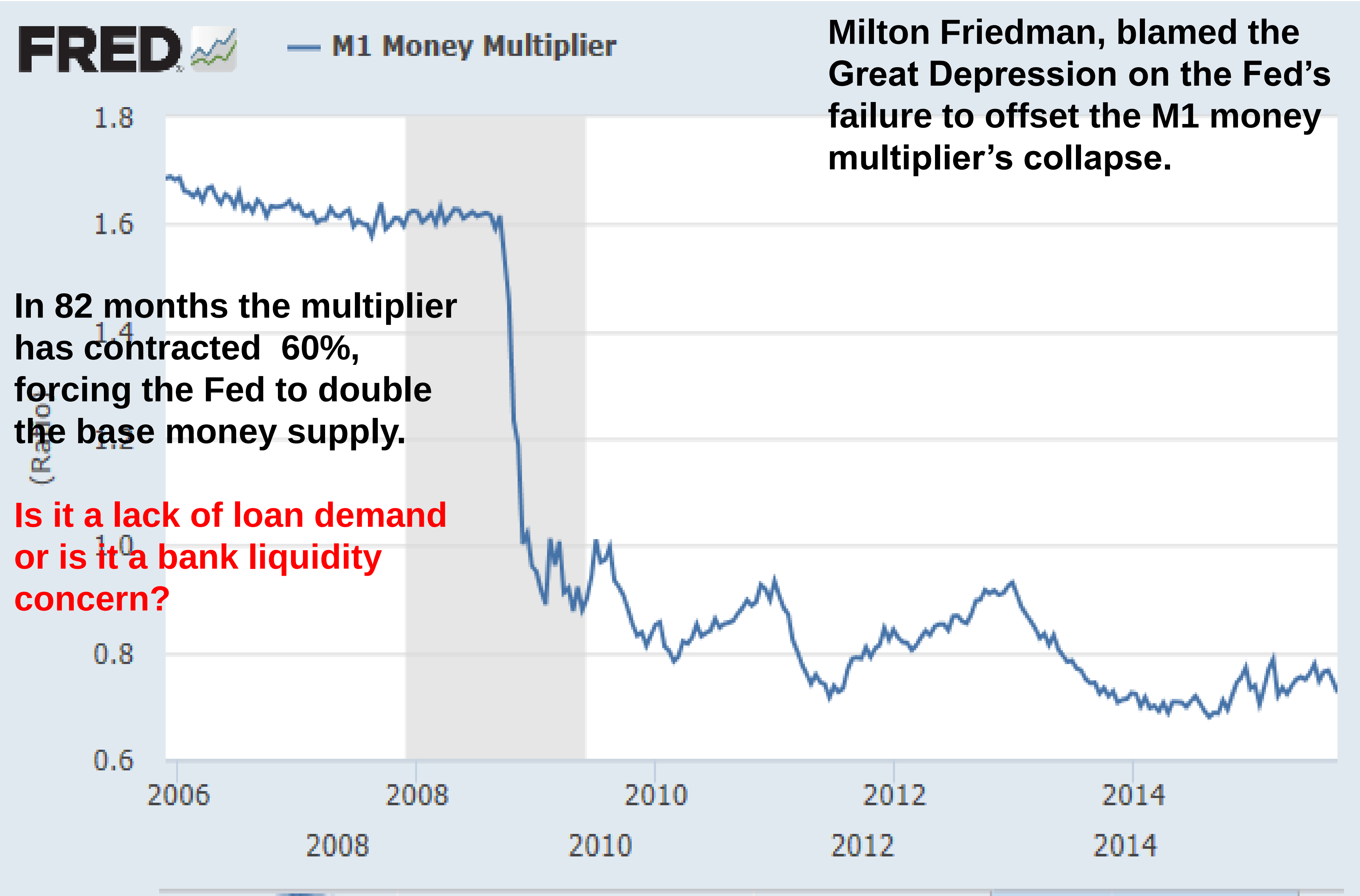
Even the Big Guys in Trouble Now

- Case Studies of Anglo, Barrick and Glencore
- Solution : Glencore to privatize???
- Bottom Line for the BIG Players:
  - Greenfield is **DEAD** for now
  - Brownfield is **IN**

Revival and Recovery: The Key Influences

- Safety of the Big Guys??
- Global Coordination of Monetary with Fiscal Policy
- Dr. Larry Summers (Former Treasury Secretary) suggests this is not a cyclical recovery
- It is a global slowdown that requires specific coordinated action

M1 Money Multiplier .749 (September 16 2015) Down from 1.84 March 2000
(St Louis Federal Reserve – 09/25/15)

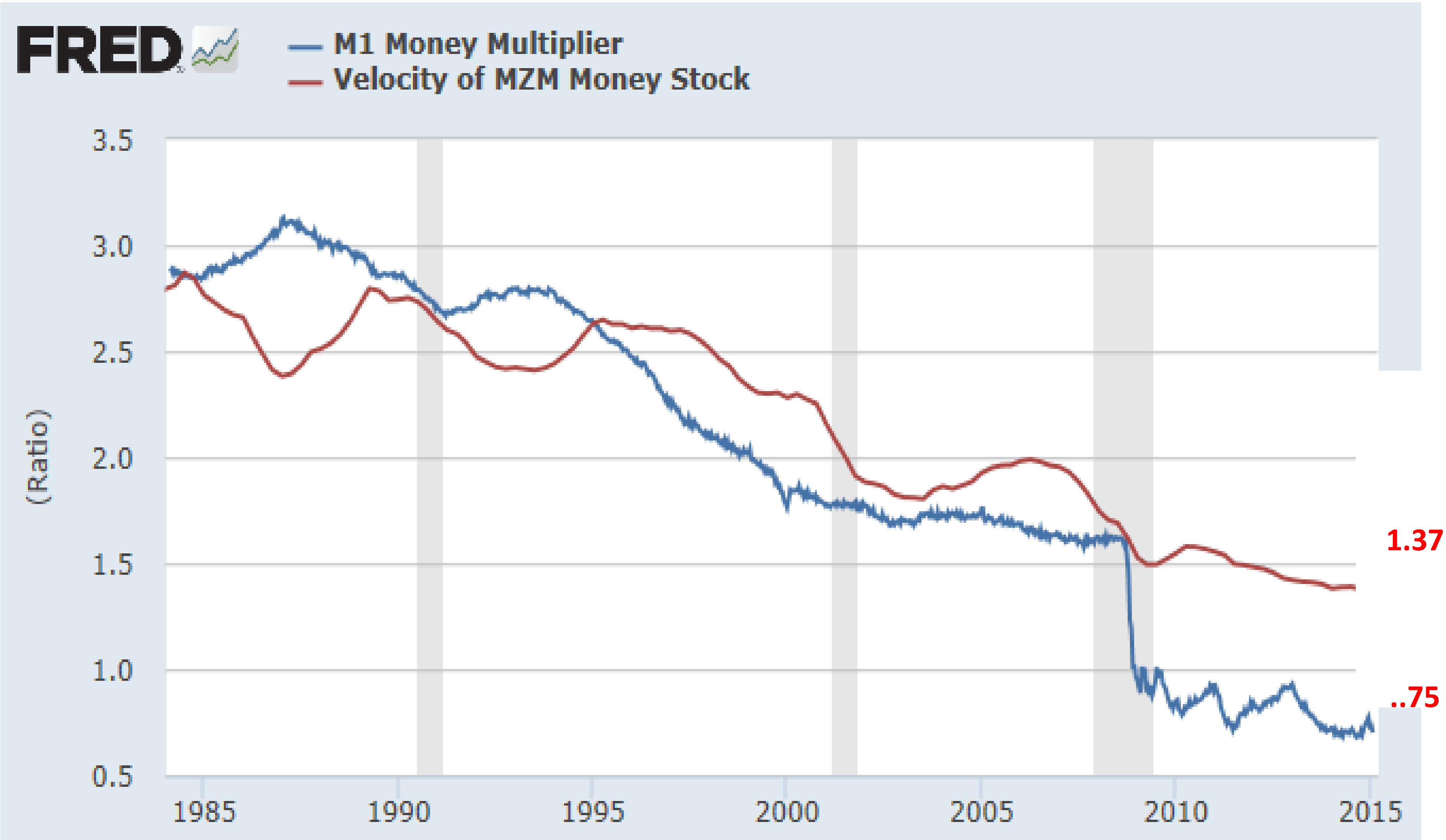


Milton Friedman, blamed the Great Depression on the Fed's failure to offset the M1 money multiplier's collapse.

In 82 months the multiplier has contracted 60%, forcing the Fed to double the base money supply.

Is it a lack of loan demand or is it a bank liquidity concern?

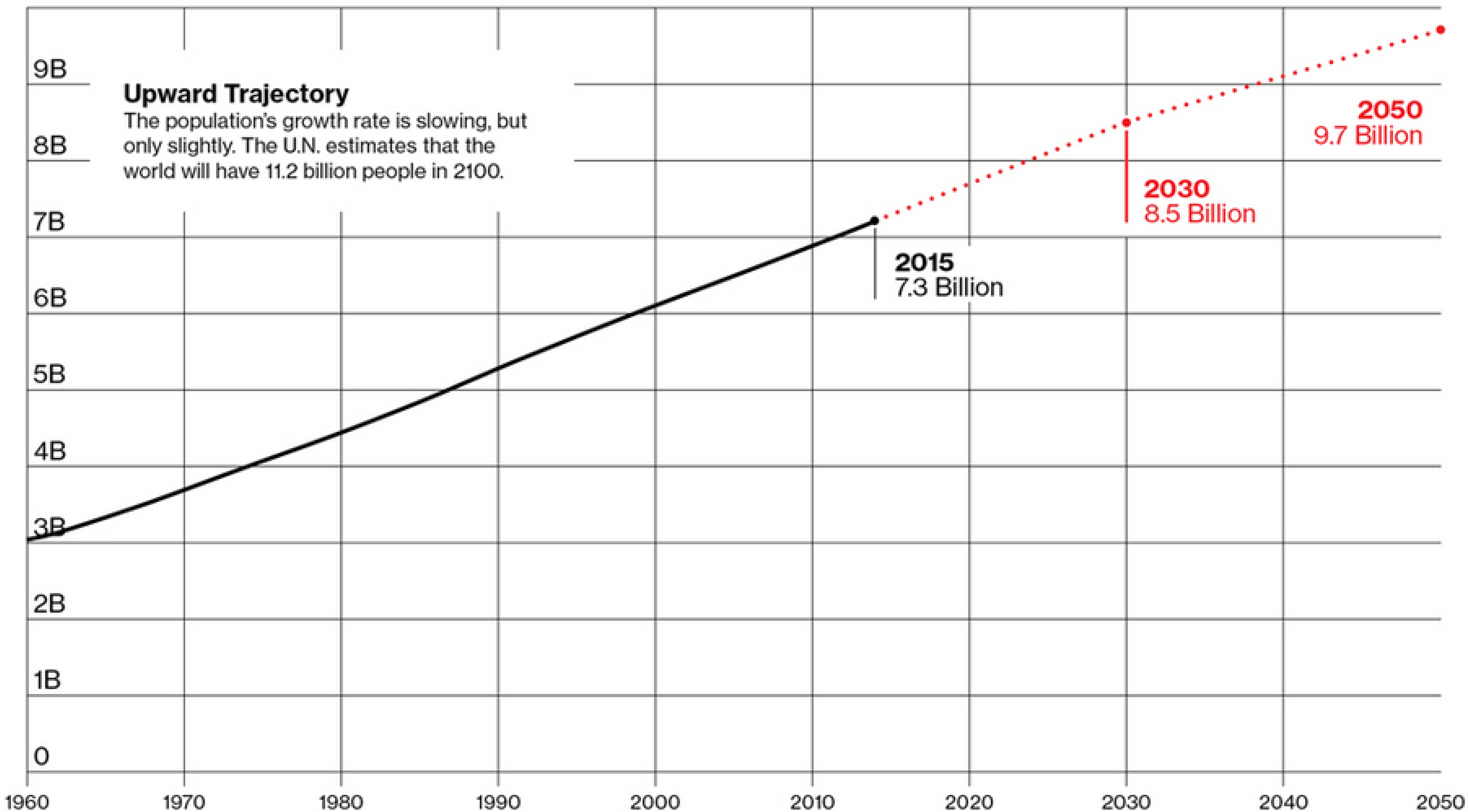
When The M1 Money Multiplier (-56%) and the Velocity (-29.7%) Decline ……



Recovery, Revival and Resolution

1. Time for Deleveraging -	3 years Minimum
2. Need for Global Coordination -	now
3. Reducing excess supply –	3yrs growth?
4. Coordinate fiscal / monetary policy .	Now
5. Focus specialized trans technology.	NOW
6. Focus supply chain development.	Now
7. Focus Corporate sustainability 3 years	Now

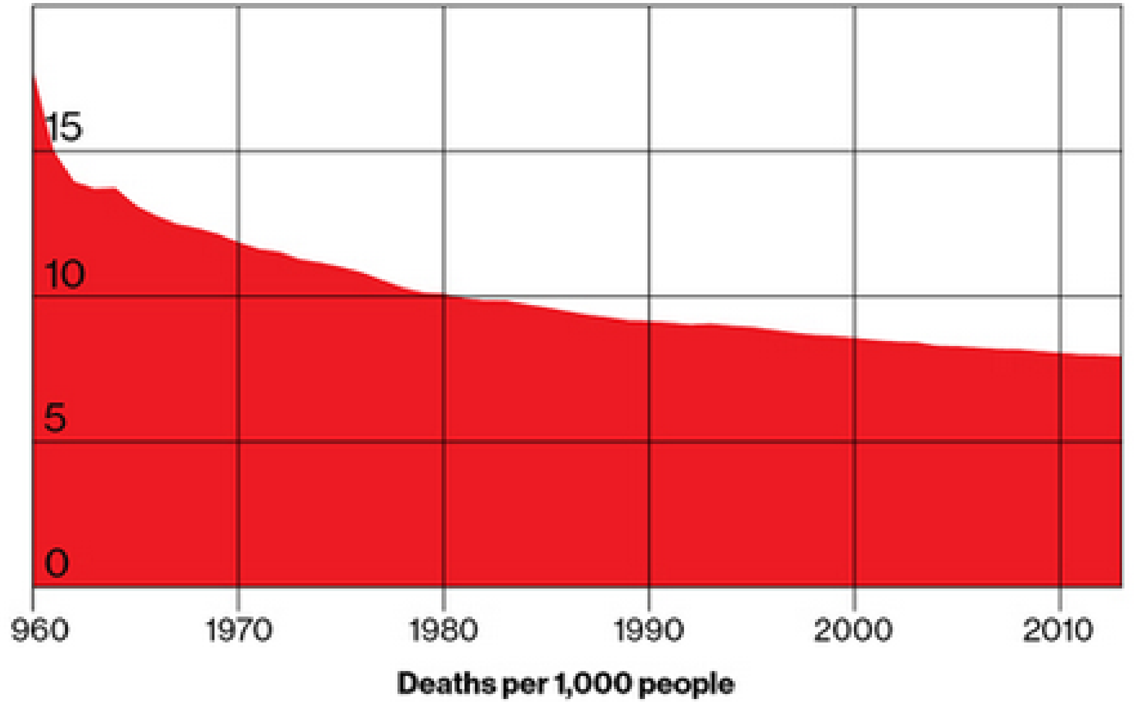
Why This Scenario Will Eventually Come To Pass: More Life Less Death



Population and Longevity Mean Increased Quality of Life

Fewer Deaths

This reduction in the death rate will dramatically change global demographics. The U.N. expects that by 2050 people over 60 will constitute nearly 22 percent of the population, up from roughly 12 percent today.



Commodity Recovery: A 2020 Window

Ranked by Probability of Recovery

- Lithium
- Copper
- Cobalt
- Oil
- Silver
- Uranium
- Graphite

Lithium- Best Bet for Early Revival

- Prices for lithium hydroxide and lithium carbonate (both used in batteries) are **on the increase** based on strong demand in the lithium ion battery sector for electric vehicles and stationary storage.

- It is anticipated that major producers won't be able to increase supply as quickly as demand is increasing. FMC, a major producer recently announced they are increasing prices by 15%.

- Lithium Carbonate is currently ~ $6,000 per tonne and Lithium hydroxide is ~$8,000 per tonne

Cobalt

Cobalt is a byproduct of copper and nickel mining.

A disruption in copper or nickel production may have a material effect on the price of cobalt. Glencore, one of the largest cobalt producers in the world, is halting their African copper production for 18 moths. This will take ~16% of global cobalt supply off the market.

This is happening as cobalt demand in batteries is growing at a CAGR of approximately 10%. The cobalt price has been flat at ~ $13 per pound, but could tick up slightly over the next couple of years.

Copper

- Copper - Supply cuts won't be enough to counteract a slowing China and excess supply on the market. Copper should be range bound $2.25 - $2.50 for the next 12 to 24 months.

- Again copper production at Glencore will come off line and we think that RTZ and BHP will be cutting production next year. Problems in Indonesia and Peru also place some emphasis on copper production in the United States and Canada. We think Yerington may be the next big copper district to be re developed.

- Copper needs a 18 to 24 months window to chew thru excess supply and allow for global growth to resume. Following that timeframe we expect to s $3.00 to $3.50 copper.ee

Oil: To Settle at $60 Per Barrel

(Prices in US$ per barrel)

In November 2014 Saudi Arabia refused to cut production. Oil spiraled down to $40. The Saudi's purpose was two fold but primarily aimed at US shale oil producers. The US had become the number 1 producer.

The resulting oil spiral from $100 to $40 forced innovation on the shale industry. It is now the global "swing" producer. In some areas Shale producers are profitable at $45. They will return quickly at $60. Texas crude gets a premium over WTI and is easily shipped to the Gulf.

The resulting decline has had a deflationary impact on the US and hurt Canadian oil production directly. Lower gasoline prices have gone to savings and not consumption as had been assumed.

Russia, Iran and many other nations require oil at or above $100 to run a surplus. Therefore we believe oil will mean revert to a minimum of $60 by 2017. This is this "NEW" level that we think oil will equilibrate to over time.

Silver: More Industrial and Primed to revert

We are silver bulls. However silver has increasingly become an industrial and high tech metal. Its use in solar applications is just one aspect of continued demand.

Silver production is in a deficit. Economic growth will impact the silver market but currently a number of mines are ceasing production. Silver will revert to $18 by 2016 and $20 by 2020 when the emerging markets begin to grow once again.

Uranium: Technology Fuel of the Past

Uranium - Excess supply and fears of another Fukushima will outweigh the China nuclear growth story. Uranium could go to $60 by 2017. Not high enough to incentivize hard rock production/development.

Graphite: Element Looking for a Future

Despite growth in the battery sector, 70% of graphite demand goes to the steel sector. As steel demand in currently shrinking (a China story), graphite prices across all flake sizes have fallen. This will continue as synthetic graphite, though more expensive to produce, is also a threat to natural graphite production. You need to compete with the China price here, and I don't believe many juniors can effectively

Much touted graphene demand is years away.

Gold: Will See $1300 to $1400 by 2020

Gold could fall to $900 as the oncoming deflation freezes asset valuations. Nevertheless gold equity prices have already been smashed almost across the board forcing producers to focus on reducing all in cash costs of production. Therefore damage to gold producers will be offset as marginal mines are put on care and maintenance.

Given the precarious nature of the world's overhanging debt load of $70 to $80 trillion and the bloated balance sheets of the worlds central bankers we believe that gold will find $1300 to $1400 by the 2020 timeframe as the deleveraging of the deflationary world takes precedence.

We particularly like the Quebec and Ontario gold plays because of their relatively favorable locale.