Gold

CPM Group

Denver Gold Group
Denver
16 January 2018

Today's Themes

Gold price expectations in 2018 and beyond.

From Fear to Greed: The changing character of gold investment demand.

The Enormous Asymmetry Of Gold Information:

A Few Of The Things We All Know About Gold That Simply Are Not True

In Fact:

Gold mining is profitable

Gold reserves are at record levels

Crypto-currencies are not the big distraction for investors from gold

Rising interest rates are not a major headwind for gold prices

The State of Gold Supply and Demand in 2018

Gold's relationship with interest rates and the dollar

Gold Price Expectations

Gold prices **averaged $1,259.47 in 2017**, up 0.7% from 2016's average price. The price rose 14% from the end of 2016 to the end of 2017, however. *(nearby active Comex)*

Near-term outlook

CPM projects gold prices will rise about 2.3% to $1,288 on average in 2018, rising modestly during the year.

Further modest gains are expected in 2019 with price gains accelerating.

Long-term outlook

Longer term, CPM expects gold prices to rise sharply, probably to record annual average prices, in the period 2021 – 2024.

Prices might reach $2,185 on a nominal average annual basis, $1,850 in 2016 dollar terms.

Why Gold Prices Are Likely To Rise Longer Term

Gold prices are projected to rise in the coming 5 – 10 years because of a combination of:

1. Economic, financial, and political factors stimulating increased investment demand.

2. Continued strong investment demand trends.

3. Continued central bank buying.

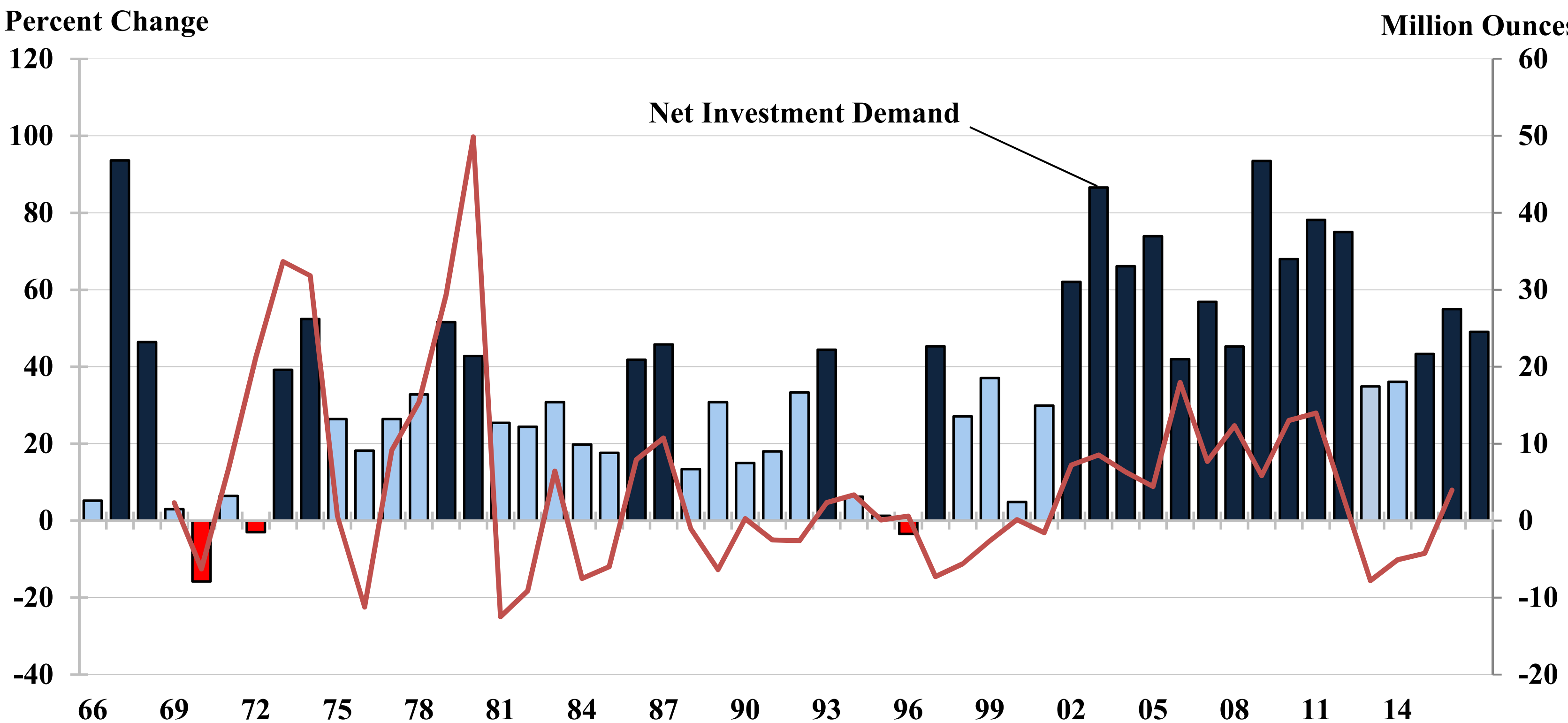
4. Declining mine production after 2019.

Shifting Investment Trends

Net Investment Demand Drives Gold Prices

Gold Investment Demand

Annual, Investment Demand Projected Through 2017, Prices Through 2016



Source: CPM Gold Yearbook, March 2017, *updated*

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From Fear To Greed *(with some fear still present)*

There are Major Shifts Underway In Gold Investment Demand

Those investors who bought and held gold out of fear of economic chaos have been pulling back from gold while investors more interested in capital appreciation have been buying.

Coin purchases are off

Secondary re-flow of coins sold by older investors

Shift away from the fear trade that drives some gold coin buyers

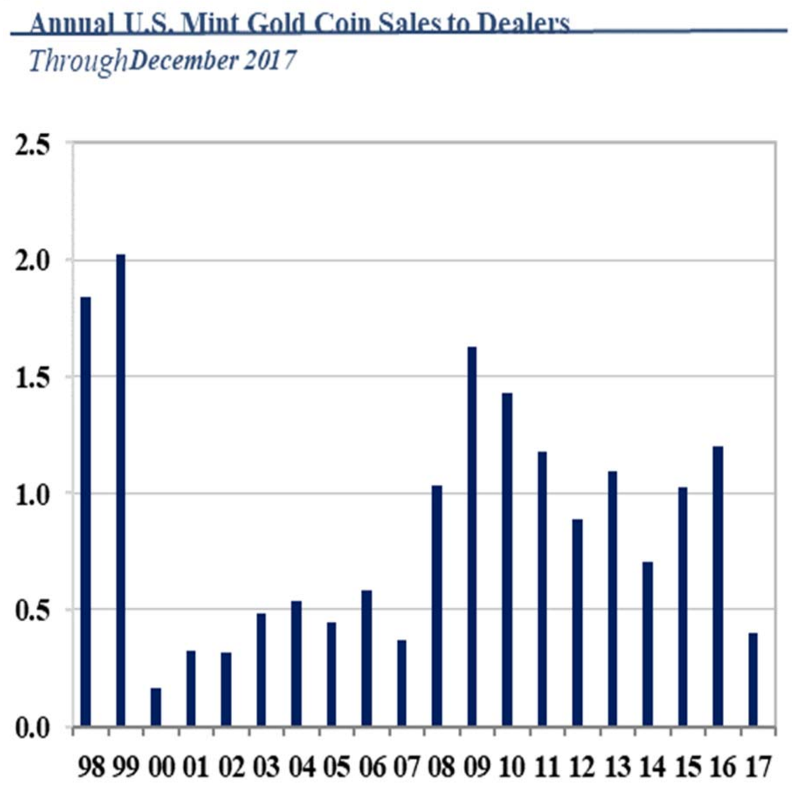
But ETFs, Futures, and Options volumes are up

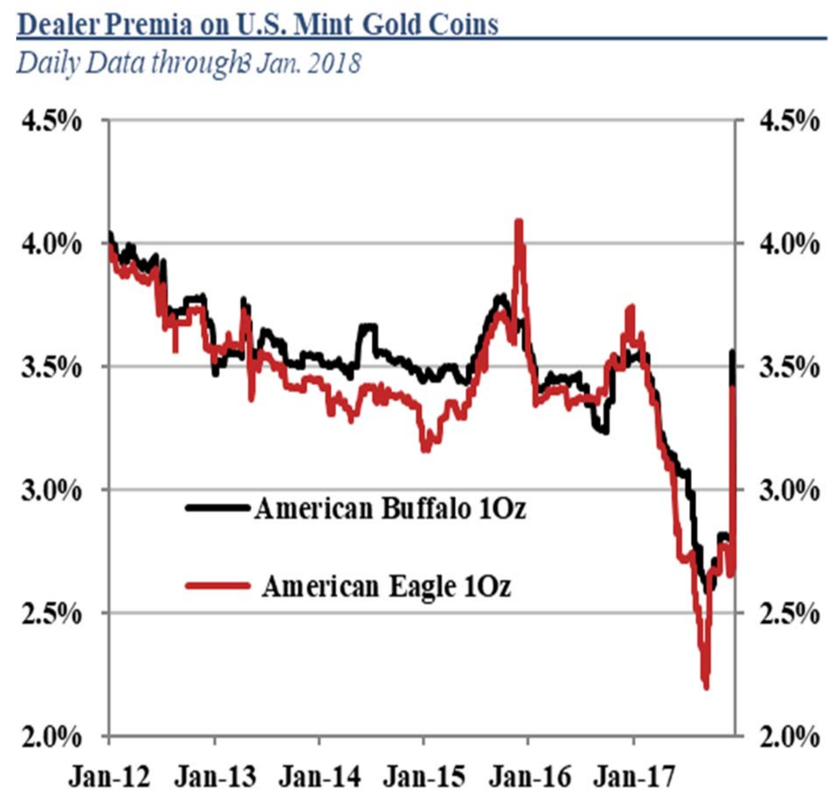
China up from 2016, as expectations of higher prices spur the 'greed trade.'

In India the long term, secular decline in investment demand continues. The economy and financial markets are doing better than they were for several years.

(Note that this preceded government restrictions and taxes.)

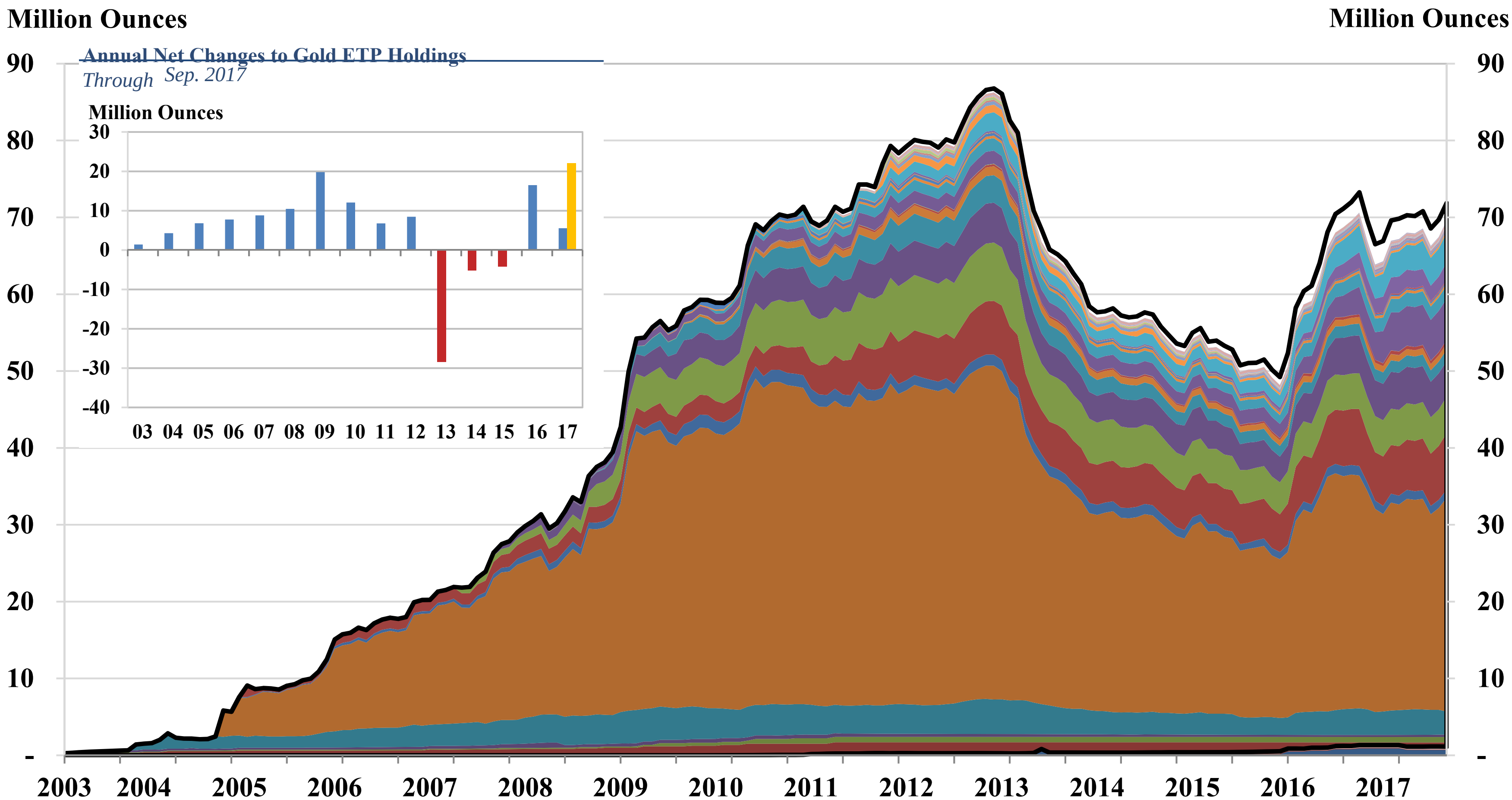
Dealer Demand For U.S. Mint Gold Coins





ETFs Recovered Around 60% Of Total Net Reduction Between 2013-2015

Exchange Traded Products' Physical Gold Holdings
Through Sept 2017



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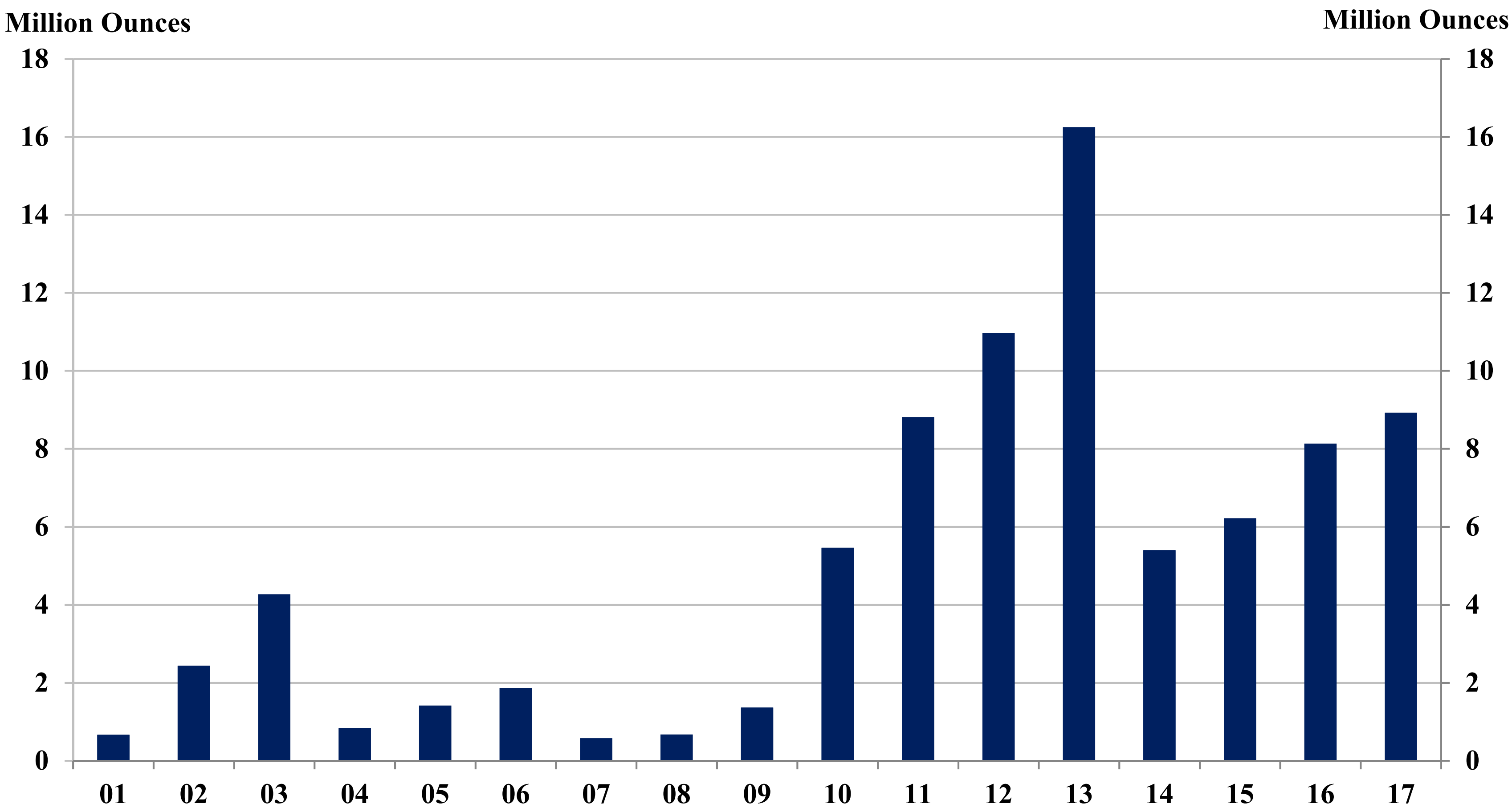
Chinese Gold Investment Demand Down From 2013 Levels, But Rising

Total Chinese Investment Demand



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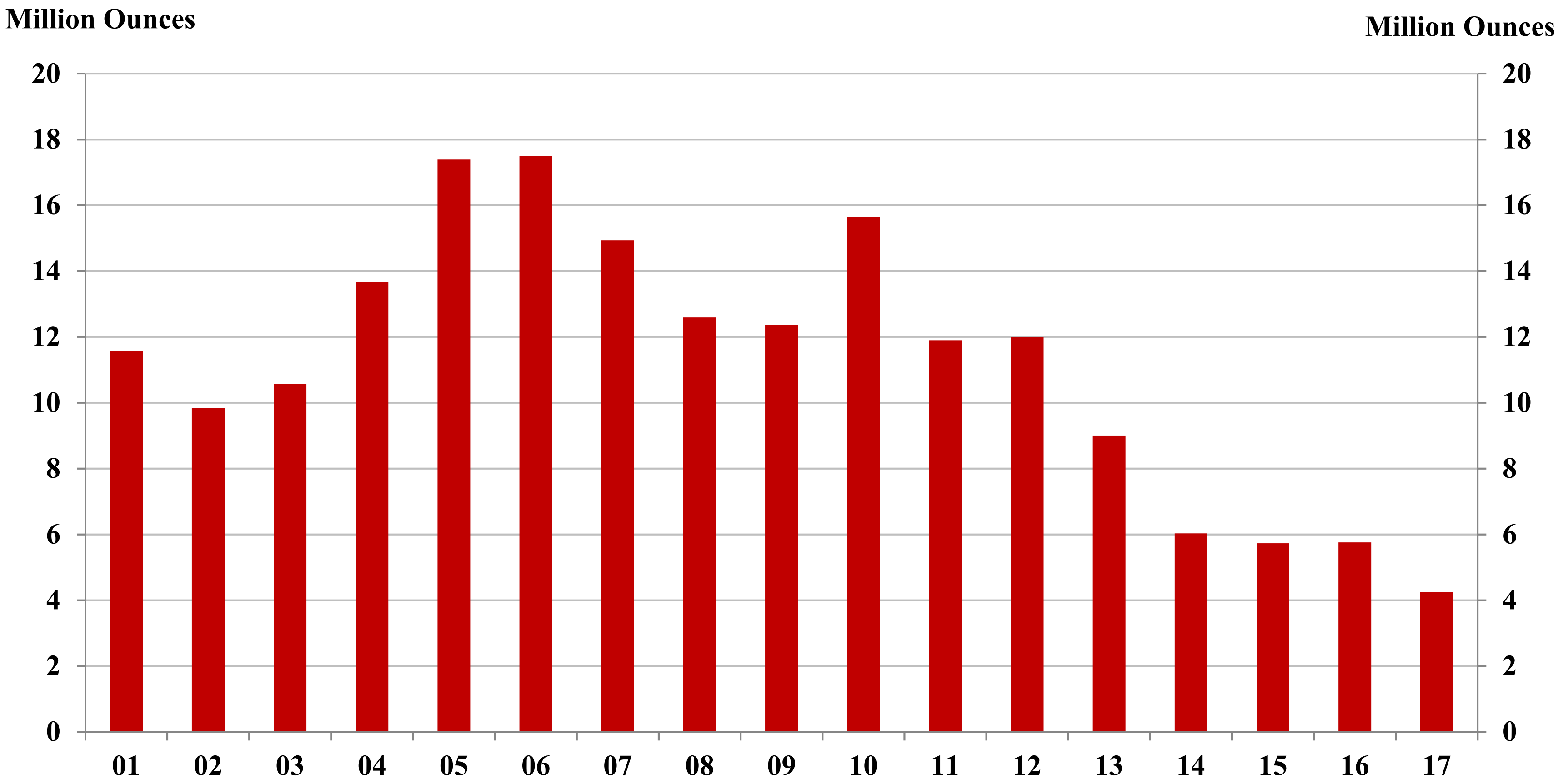
Indian Gold Investment Demand In Long-Term Decline

Total Indian Investment Demand



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“Greedy” Investors Seek Profits

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Shorter Term Investing Can Be Highly Profitable

These are the results of an actual trade CPM structured for clients on 7 October 2016, to take advantage of an expected increase in gold prices leading up to the 8 November election. The trade was intended to be liquidated around the election, on 8 or 9 November, as prices were expected to decline sharply after the election. The trades were liquidated 9 November.

Per Ounce

Initial Trade			**Closed Out Position**		
7 October 2016			**9 November 2016**		
Dec16 options - Expiry 22 November					
	Actual Pricing			Actual Pricing	
	$1,256.00			$1,303.00	8:40 AM
Priced at	Strike	Premium		Premium	Change from Initial Trade
Buy Call	$1,300	-$9.20	Sell Call	$17.50	$8.30
Sell Call	$1,350	$2.80	Buy Call	-$4.00	-$1.20
Sell Call	$1,350	$2.80	Buy Call	-$4.00	-$1.20
Buy Call	$1,400	-$1.10	Sell Call	$1.10	$0.00
Premium Paid		-4.70	Premium Received	$10.60	
			Net Gain/Loss		$5.90

Value Per 100 - oz Contract	-470.00	$1,060	**$590**
Gross Profit			**125.5%**

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Such Strategies Work Repeatedly

Such trades do not need events to drive them. They can be developed and managed on an on-going basis. These are the results of an actual trade CPM structured for clients on 11 April 2017, to take advantage of an expected decrease in gold prices. The trades were liquidated 9 May.

Per Ounce

Initial Trade			**Closed Out Position**		
11 April 2017			**9 May 2017**		
Jun17 options - Expiry 25 May					
	Actual Pricing			Actual Pricing	
	$1,273.00			$1,221	9:26 AM
Priced at	Strike	Premium		Premium	Change from Initial Trade
Buy Put	$1,250	-$14.72	Sell Put	$31.40	$16.68
Sell Put	$1,220	$6.18	Buy Put	-$10.40	-$4.22
Sell Put	$1,220	$6.18	Buy Put	-$10.40	-$4.22
Buy Put	$1,190	-$2.42	Sell Put	$1.90	$0.52
Premium Paid		-4.78	Premium Received	$12.50	
			Net Gain/Loss		$7.72
Value Per 100 - oz Contract		-478.00		$1,250	**$772**
Gross Profit					**161.5%**

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Equities, not bitcoin, are ‘distracting’ gold investors

Equity markets are distracting investors away from gold.

Cryptocurrencies are a sideshow compared to real financial markets.

Cryptocurrencies	Gold	Equities
~$720 billion value	$3.3 trillion physical holdings	$68 trillion
	~$6 trillion derivatives	$ quadrillions derivatives
< 1 million invstors	Billions of investors	Billions of investors

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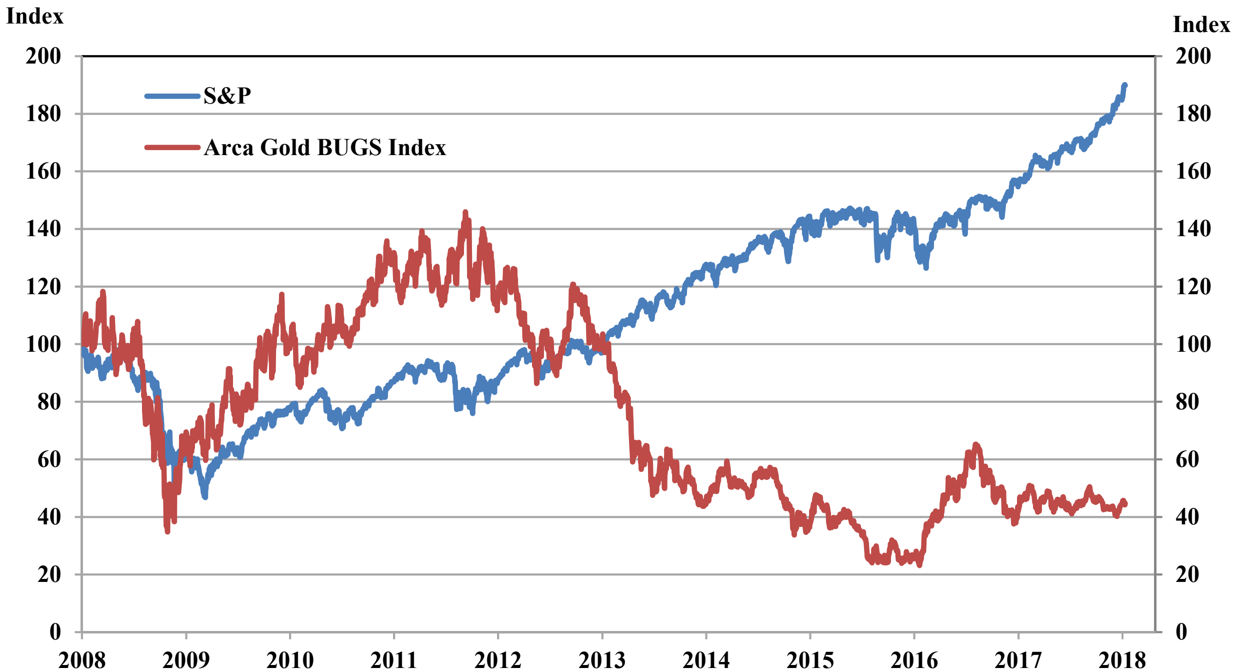
Equities ‘Distract’ Investors From Gold Shares, Too

Major Gold Company Index and the S&P 500

Daily Data, Index 100=2 January 2008, Through 9 January 2018



The NYSE Arca Gold BUGS Index is a modified equal-dollar weighted index of companies involved in major gold mining. The index was designed to give investors significant exposure to near term movements in gold prices by including companies that do not hedge their gold production beyond 1½ years. The index was developed with a base value of 200 as of March 15, 1996.

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Gold's Investment Role

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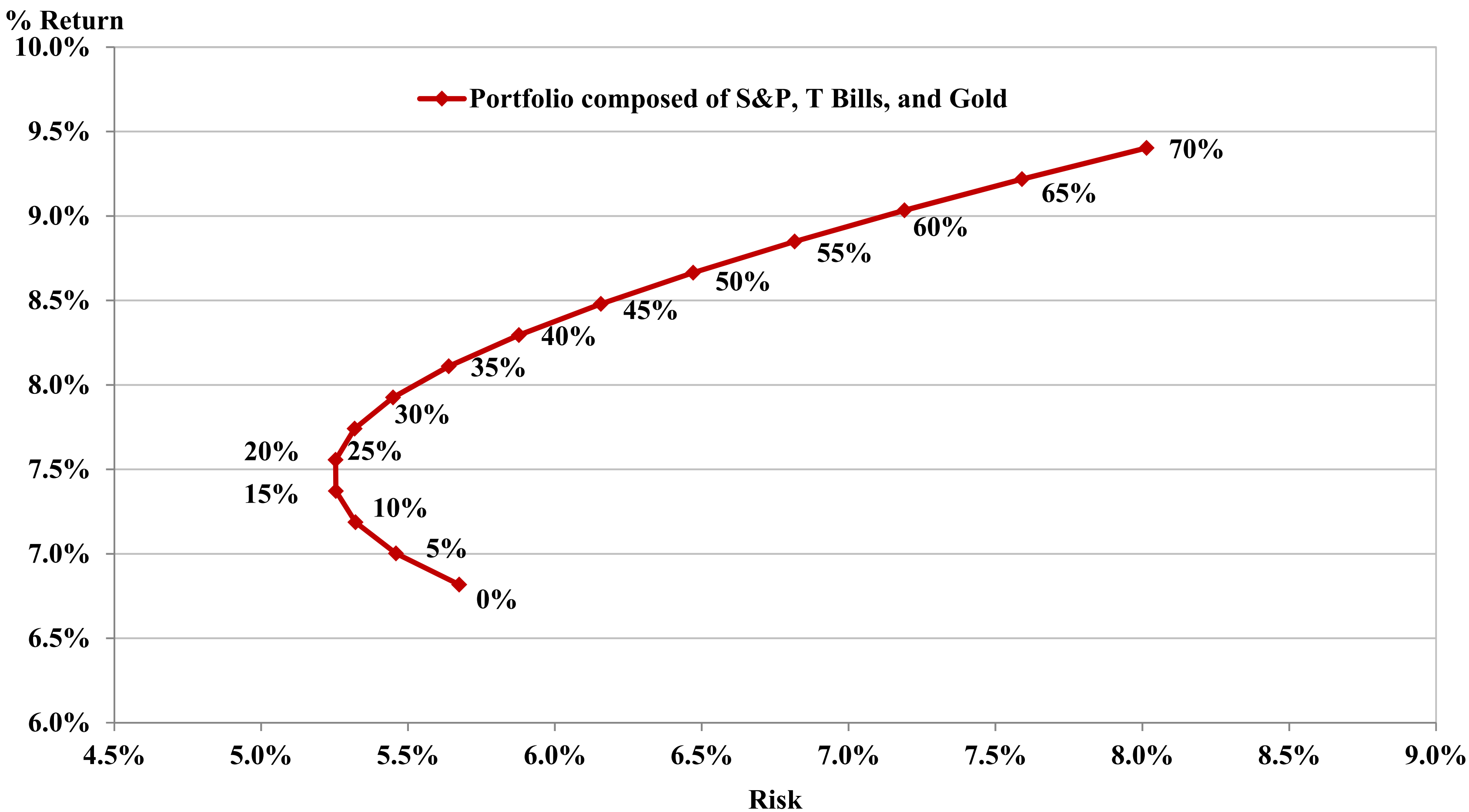
The Optimal Allocation To Gold

A portfolio with 25% of its assets in gold had the best risk: reward ratio in the years 1968 - 2016



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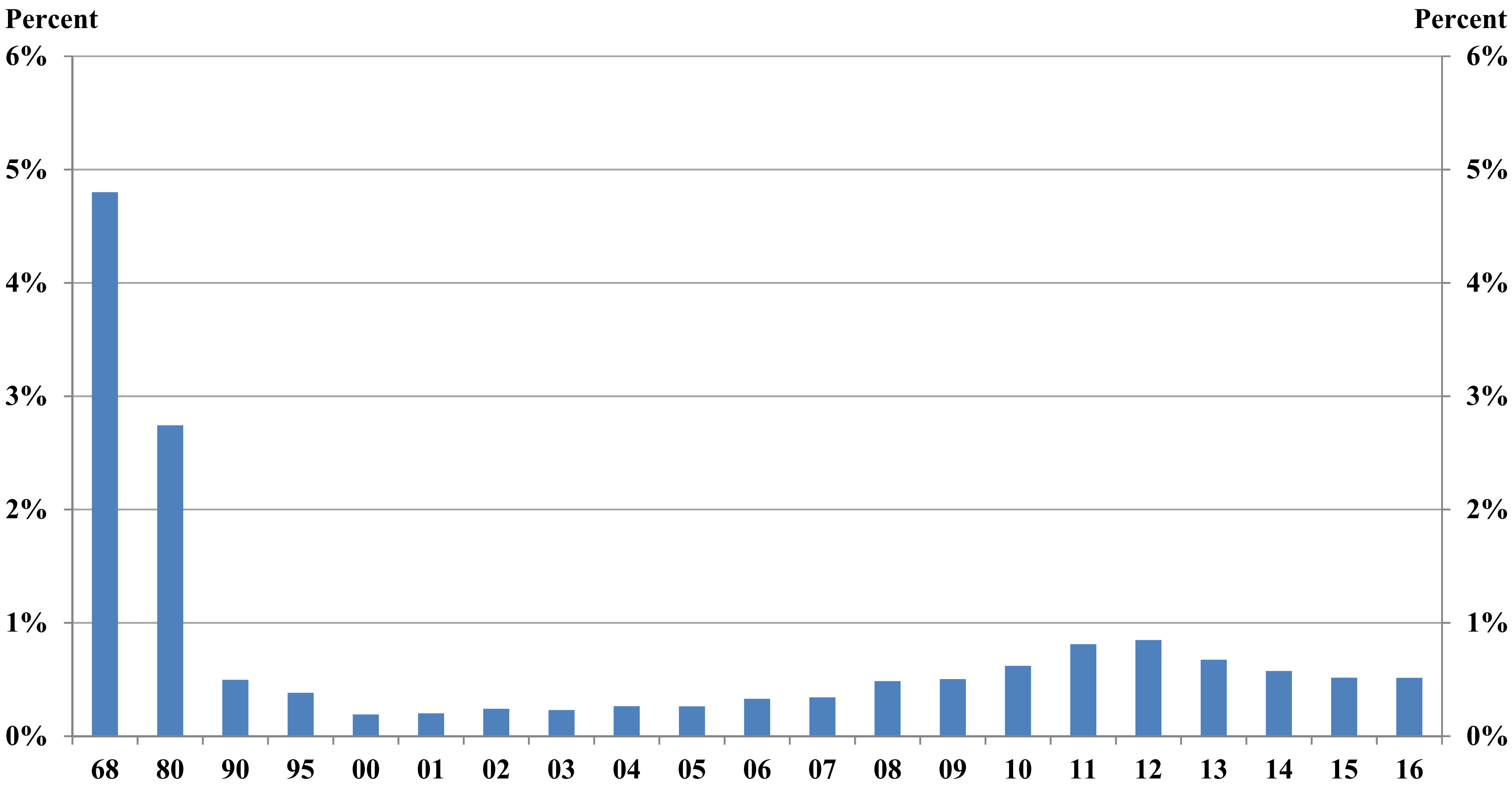
Gold as Percentage of Financial Assets

Gold as a Percent of Global Financial Assets



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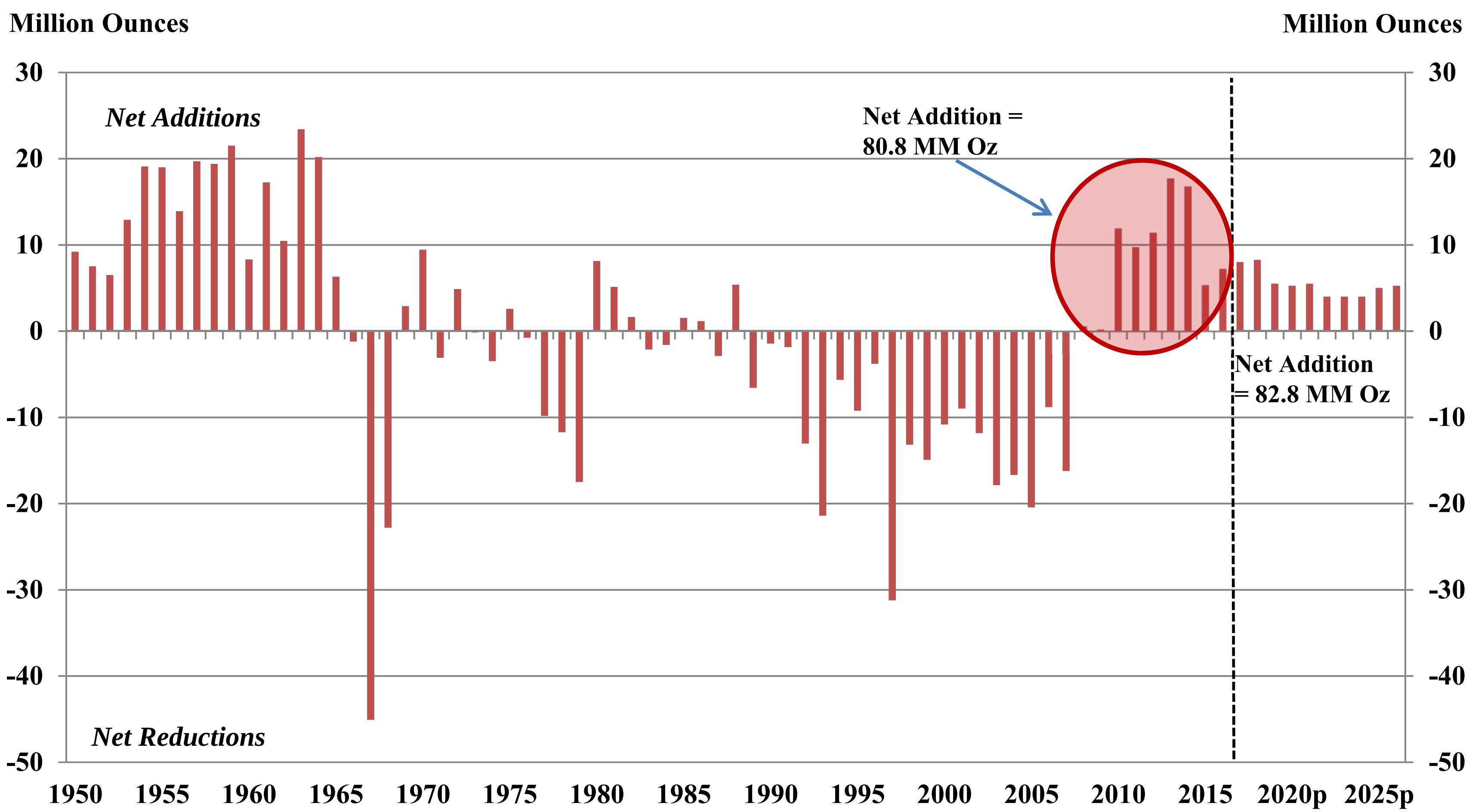
Gold’s “Other” Fundamentals

Central Banks Continue Buying, At Slower Pace

Official Transactions: Net Central Bank Gold Purchases and Sales



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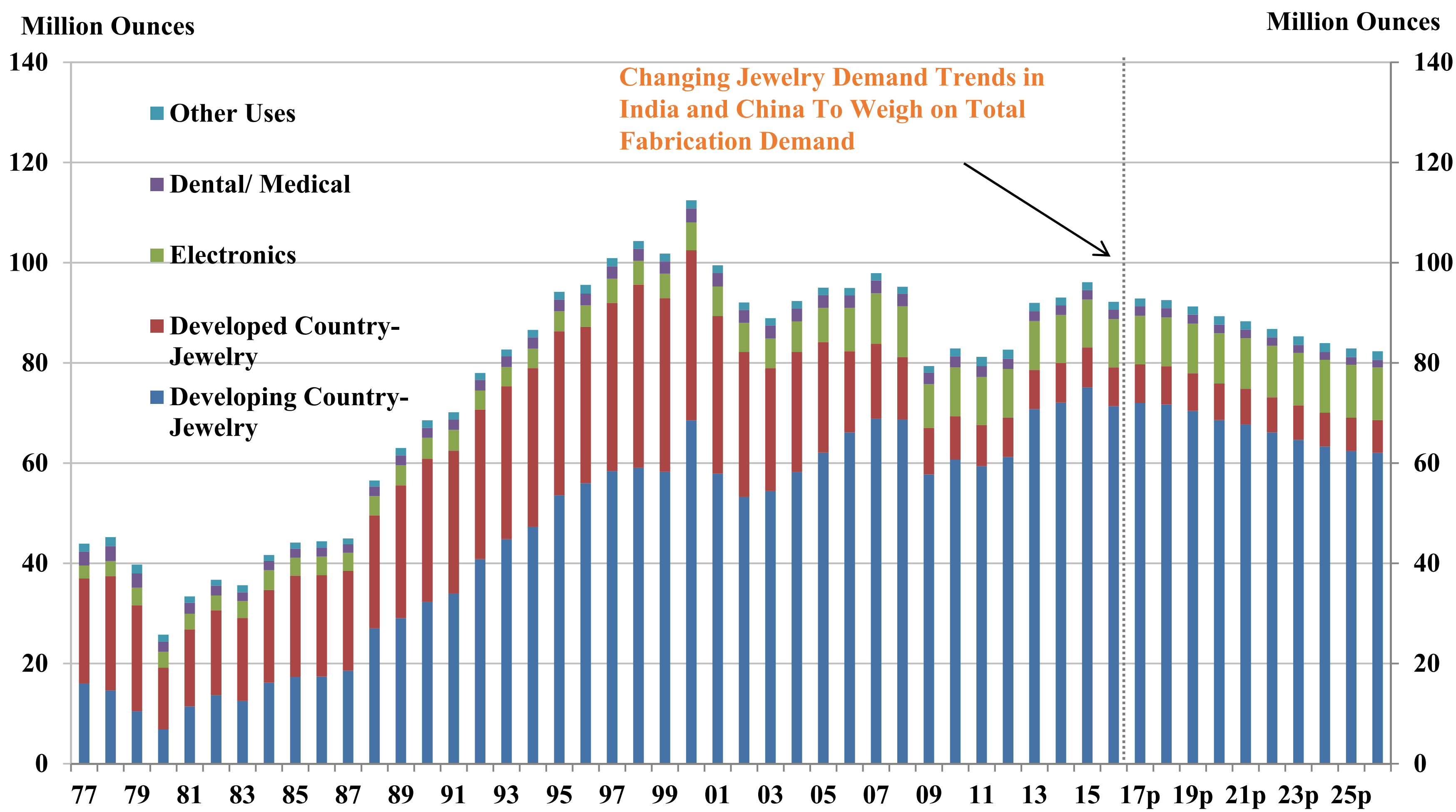
Fabrication Demand Projected To Decline

Gold Fabrication Demand



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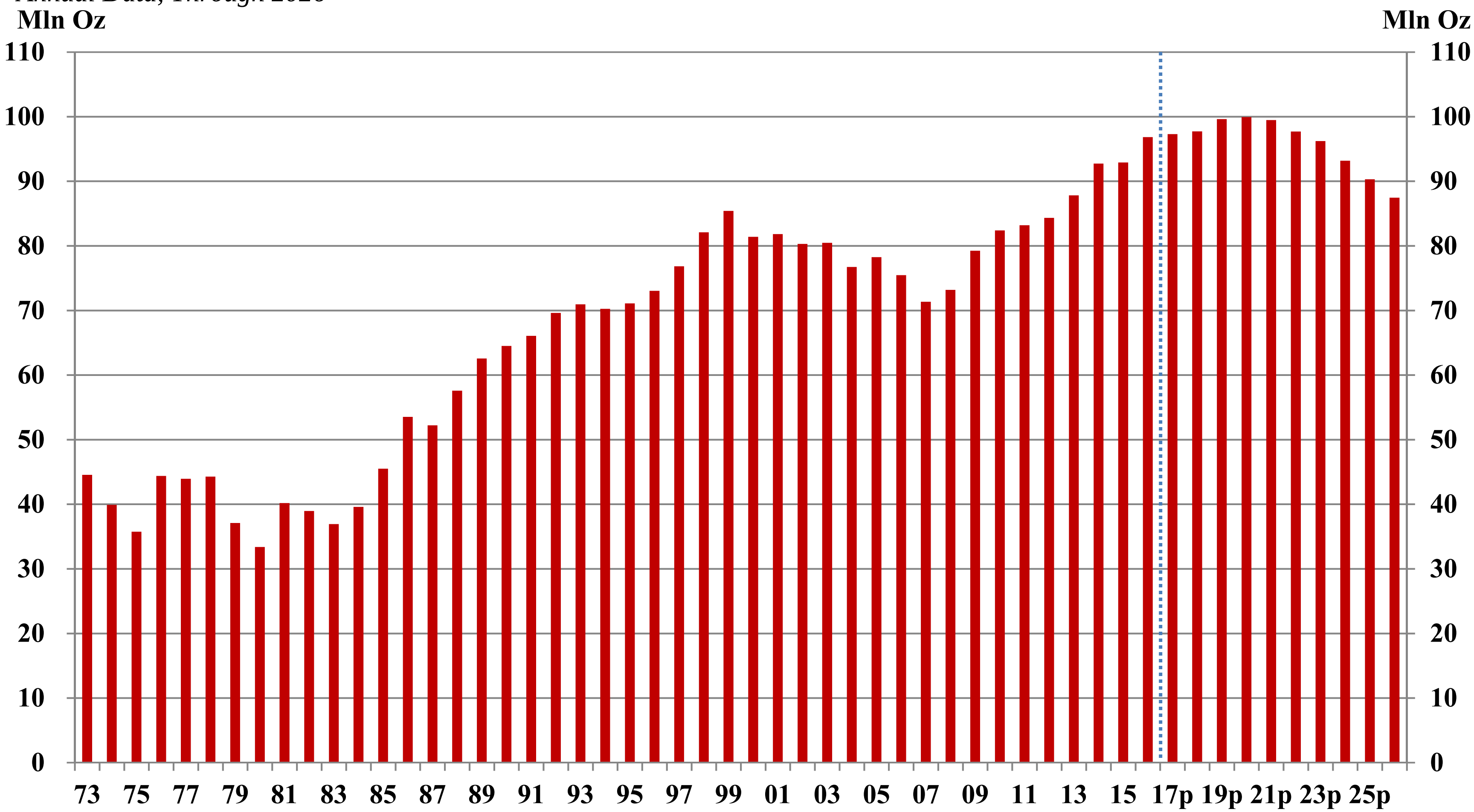
Global Gold Mine Supply: Nearing A Turning Point

Global Gold Mine Supply

Annual Data, Through 2026



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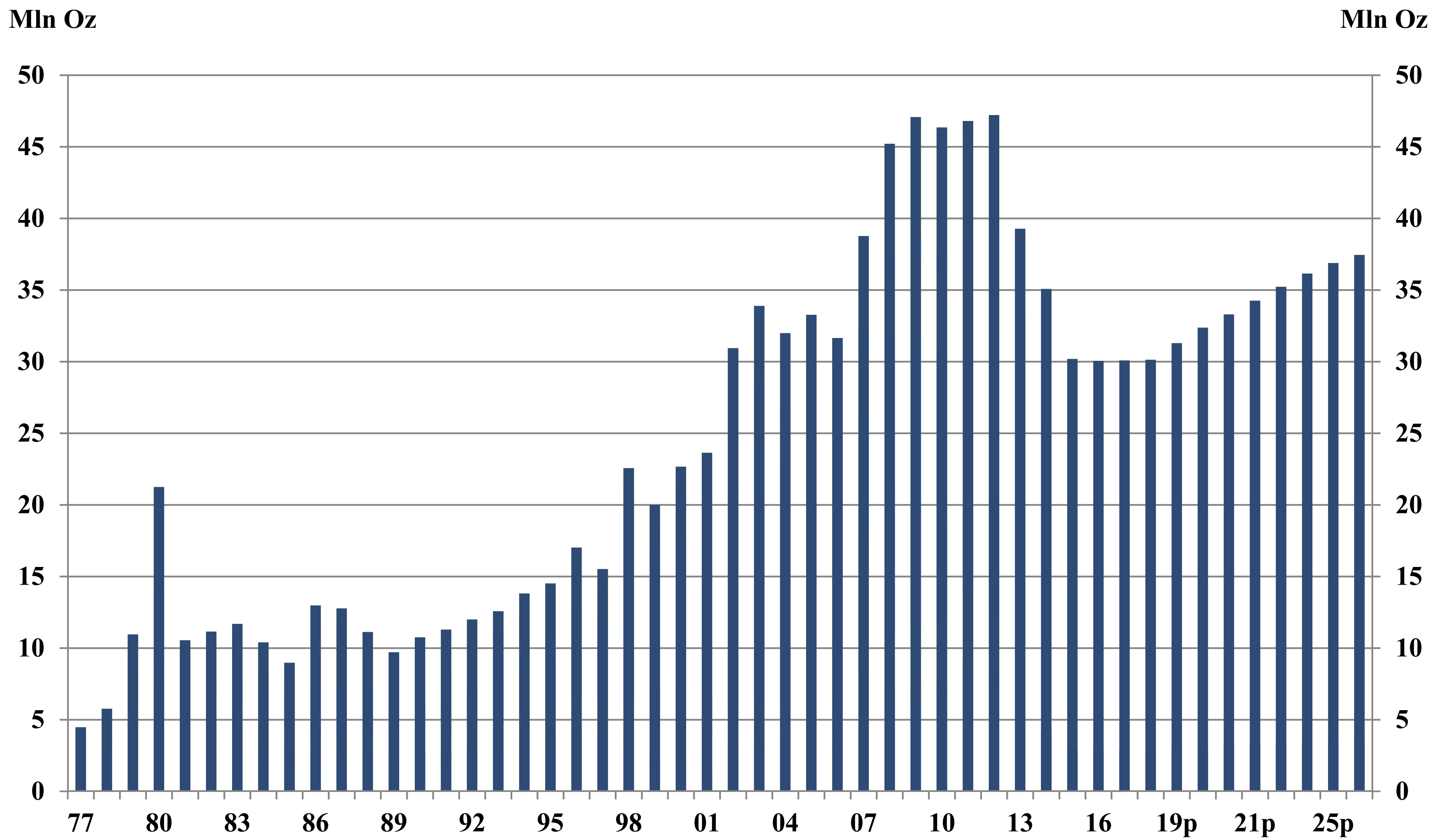
Secondary Supply Increase Will Offset Mine Output Decline



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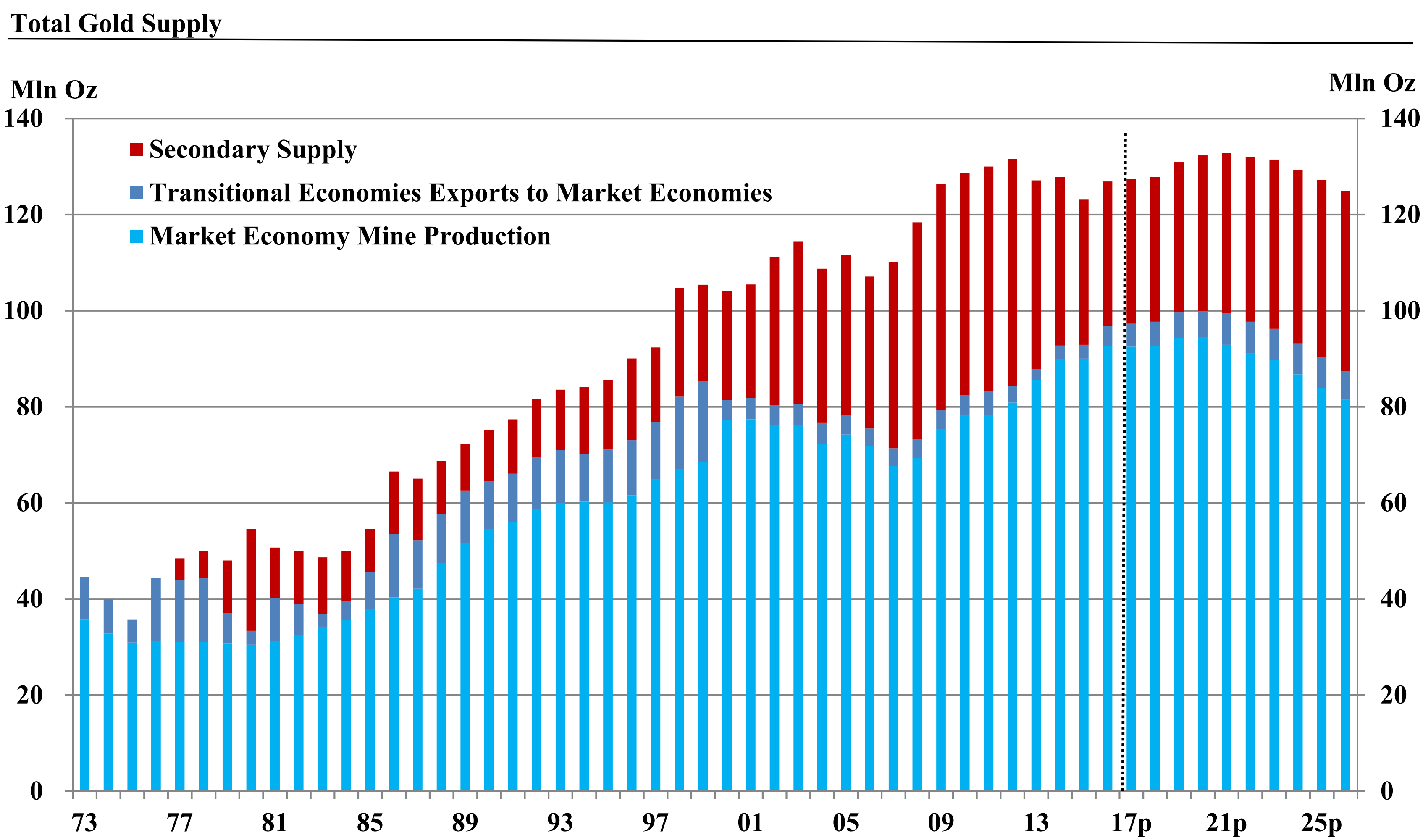
Longer Term Total Supply



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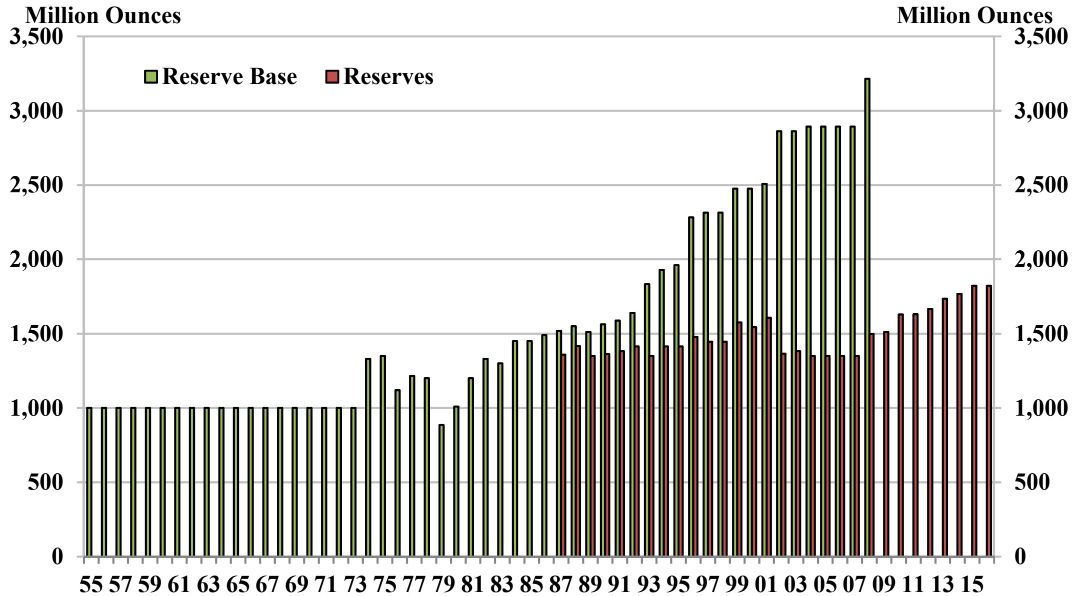
Gold Reserves Are At All Time High

Gold Reserves and Reserve Base



Source: USGS.
Notes: Reserve Base refers to the Measured and Indicated Resource. USGS discontinued its reporting of the Reserve Base as of 2009.

Bad data suggest reserves are at historical lows. They are not. In fact, they are higher than ever before.

And, these reserve figures exclude massive resources, including mineralized properties in China and Siberia.

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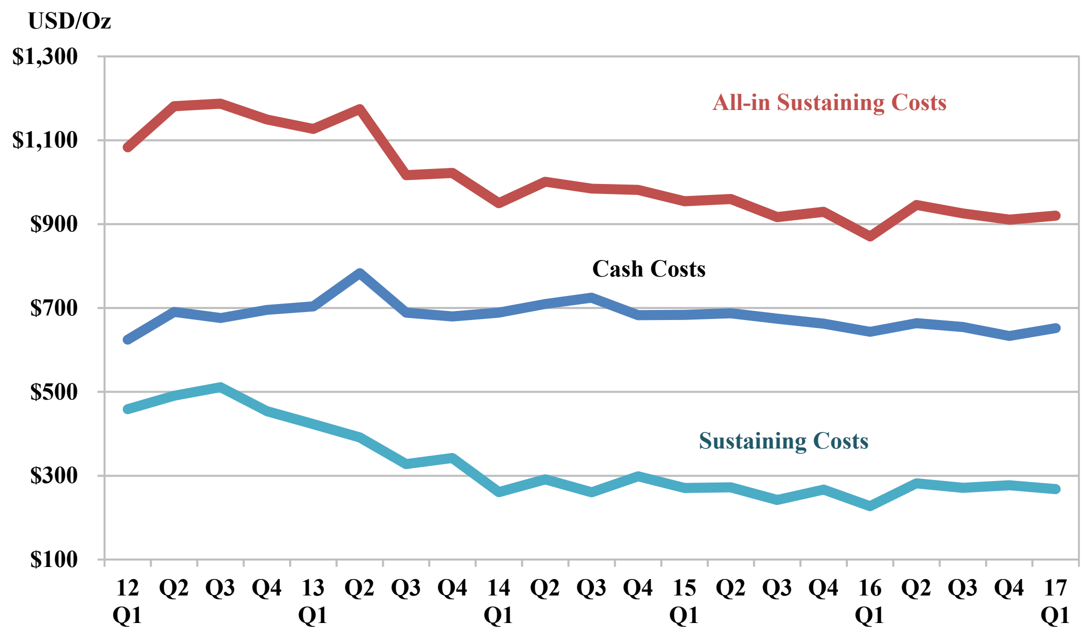
Gold Mining Is Unsustainable At Current Prices

Costs Follow Prices: Lower Gold Prices Have Reduced All In Sustaining Costs

Production-Weighted All-In Sustaining Cost For Selected Gold Mining Companies



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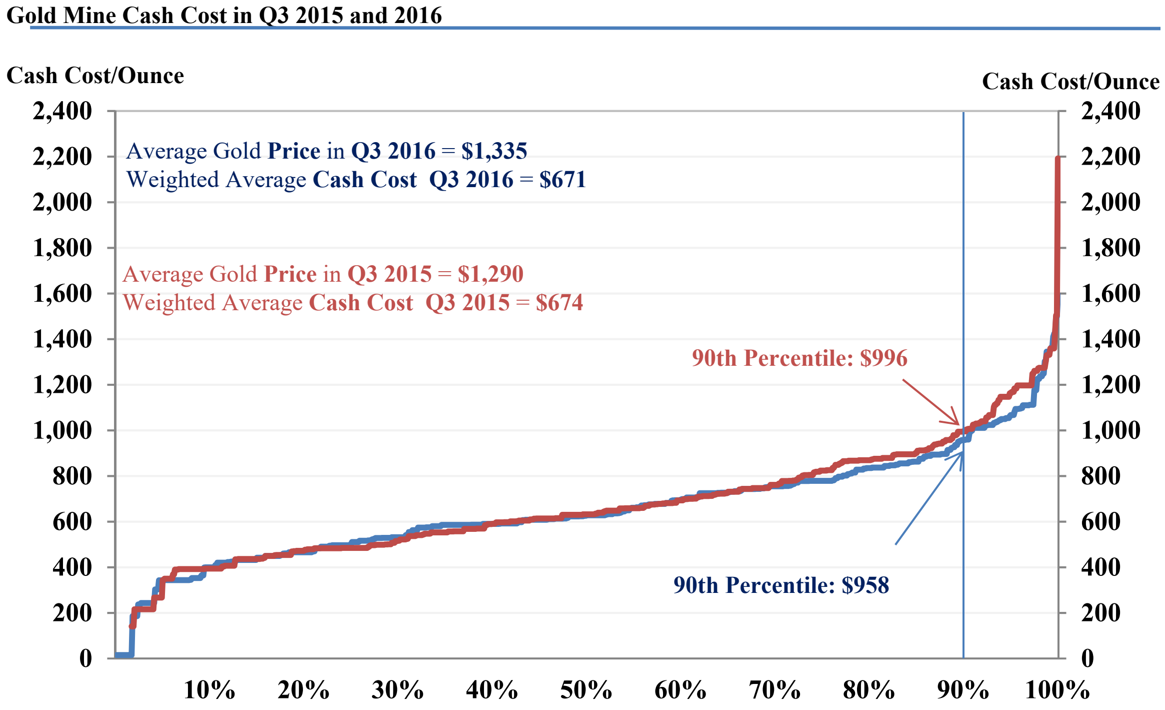
Most Gold Mines Are Profitable

Cash Production Costs



Averages hide a lot.

All in sustaining costs are more difficult to gather, but cash costs show that more than 90% of current production was processed for less than $1,000 per ounce.

Many newer operations have lower costs.

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Monetary Policy and Gold

Fed Policies and Gold

The Fed is a human institution.

1. **What Is The Fed Policy**
2. **Why Is The Fed Pursuing These Policies**
3. **CPM's views on Fed policy being misdirected at this time**
4. **Interest Rates and Gold: The Empirical Evidence**
5. **CPM's Gold Price Outlook**
6. **The Role of Fed Policy In CPM's Gold Price Outlook**

What Is The Fed Policy

The Fed has begun raising interest rates from abnormally low levels

The Fed is preparing to begin liquidating some of the $4.5 trillion in bonds and other assets it has added to its balance sheet since 2008.

It seeks to try to normalize interest rate markets before the next financial crisis or recession.

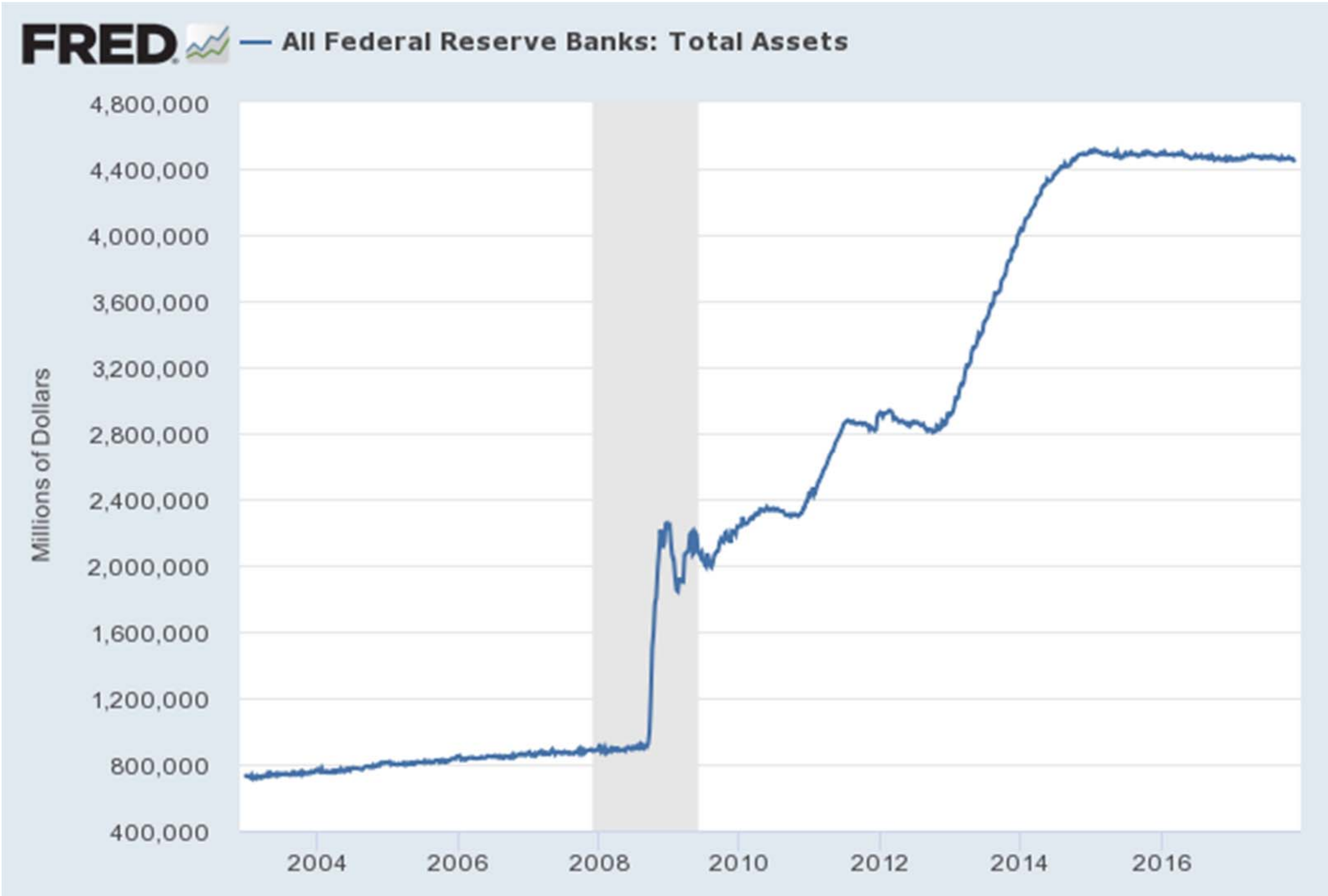
• The Fed has squeezed private borrowing, taking lending into less productive and outright unproductive government programs and reducing funds to private corporations and individuals.

There is a fallacy: The Fed has plenty of "ammunition left to use in future crises," even if it did not pursue these policies.

The Fed has enormous capacity left to fight future crises.

Whether it has the wisdom and political power to do so is a separate issue.

The Federal Reserve System Balance Sheet



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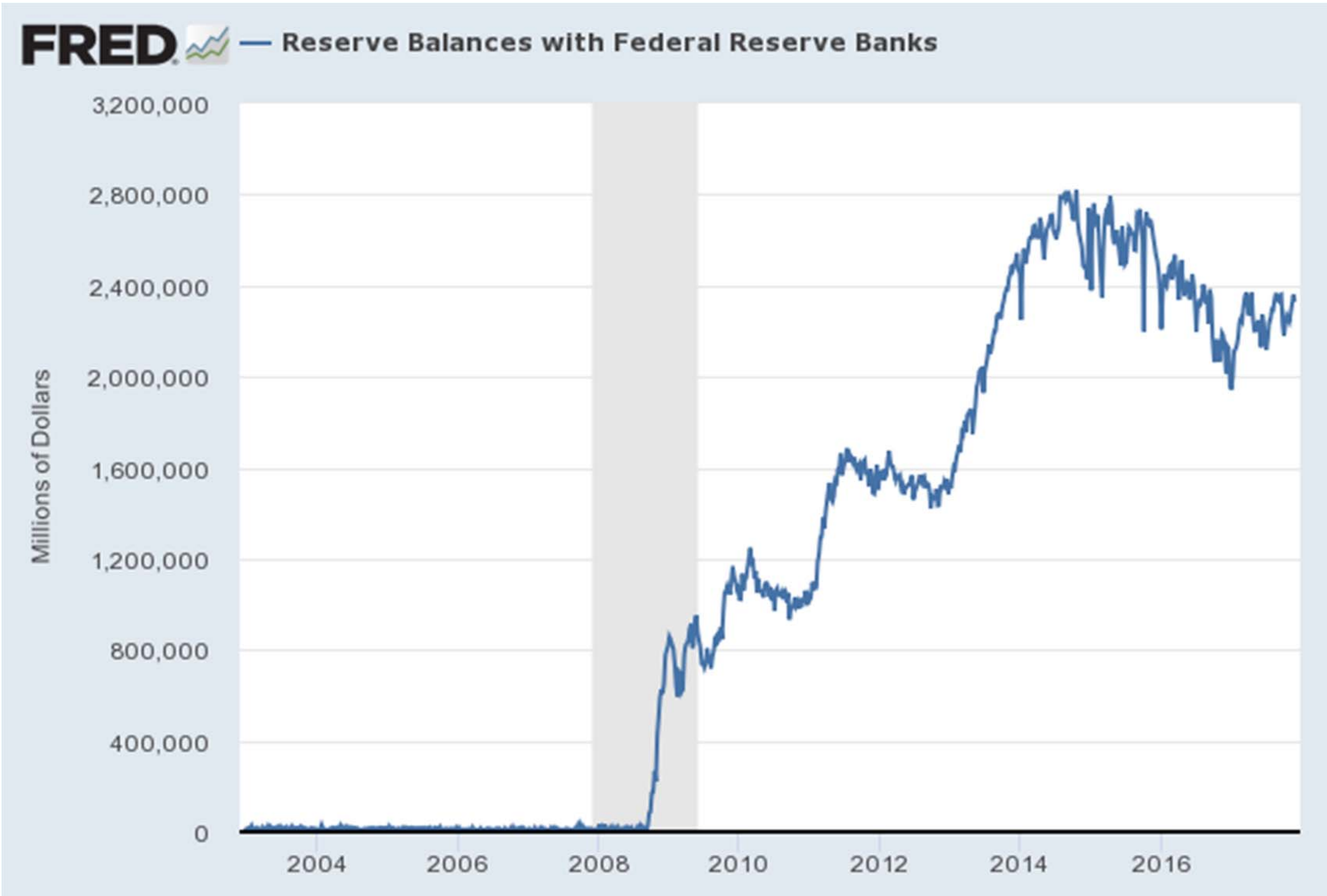
Excess Reserves As Fed Chartered Banks



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Why Is The Fed Pursuing These Policies

Traditionally the Fed has raised interest rates to quell inflation. There is no systemic nor cyclical inflation or tight employment markets at present, and thus there are no empirical reasons existing in the U.S. or global economy to warrant raising interest rates and reducing the balance sheet.

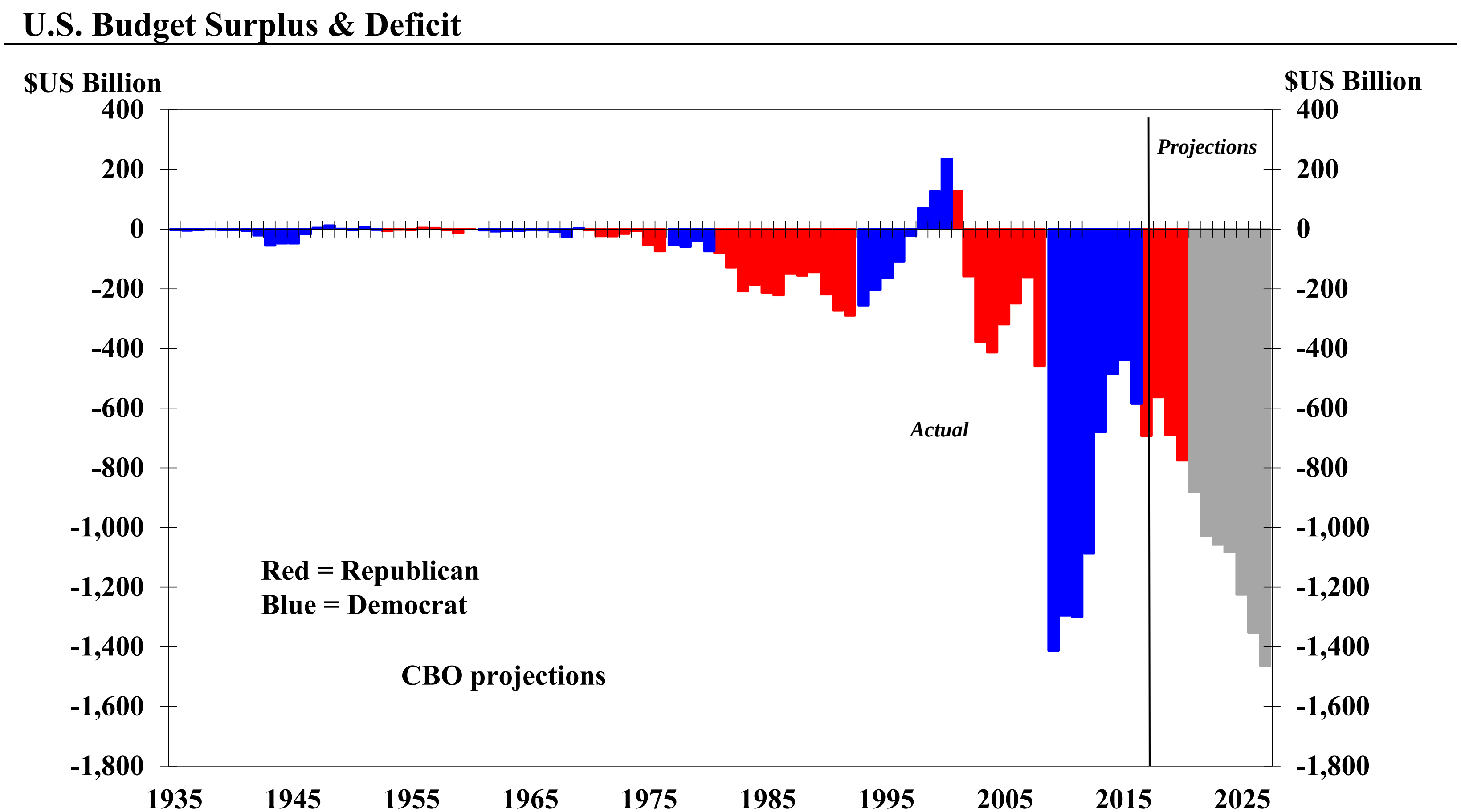
The Fed wants to raise interest rates on the theory that doing so would encourage lending institutions to lend more to small and medium sized enterprises (SMEs) and individual borrowers.

- Borrowing by SMEs and individual is the most powerful engine of real growth.
- This theory flies in the face of other proven theories and empirical evidence.
    - It makes no sense.
    - It is counter productive.

Interest earned by the Fed on its balance sheet assets, reverting to the U.S. Treasury, has been reducing the Federal budget deficit by around $100 billion per year since 2010. Throwing that away for no good reason is not logical.

Fiscal Policy and Gold

There Are Limits To US Government Borrowing Power



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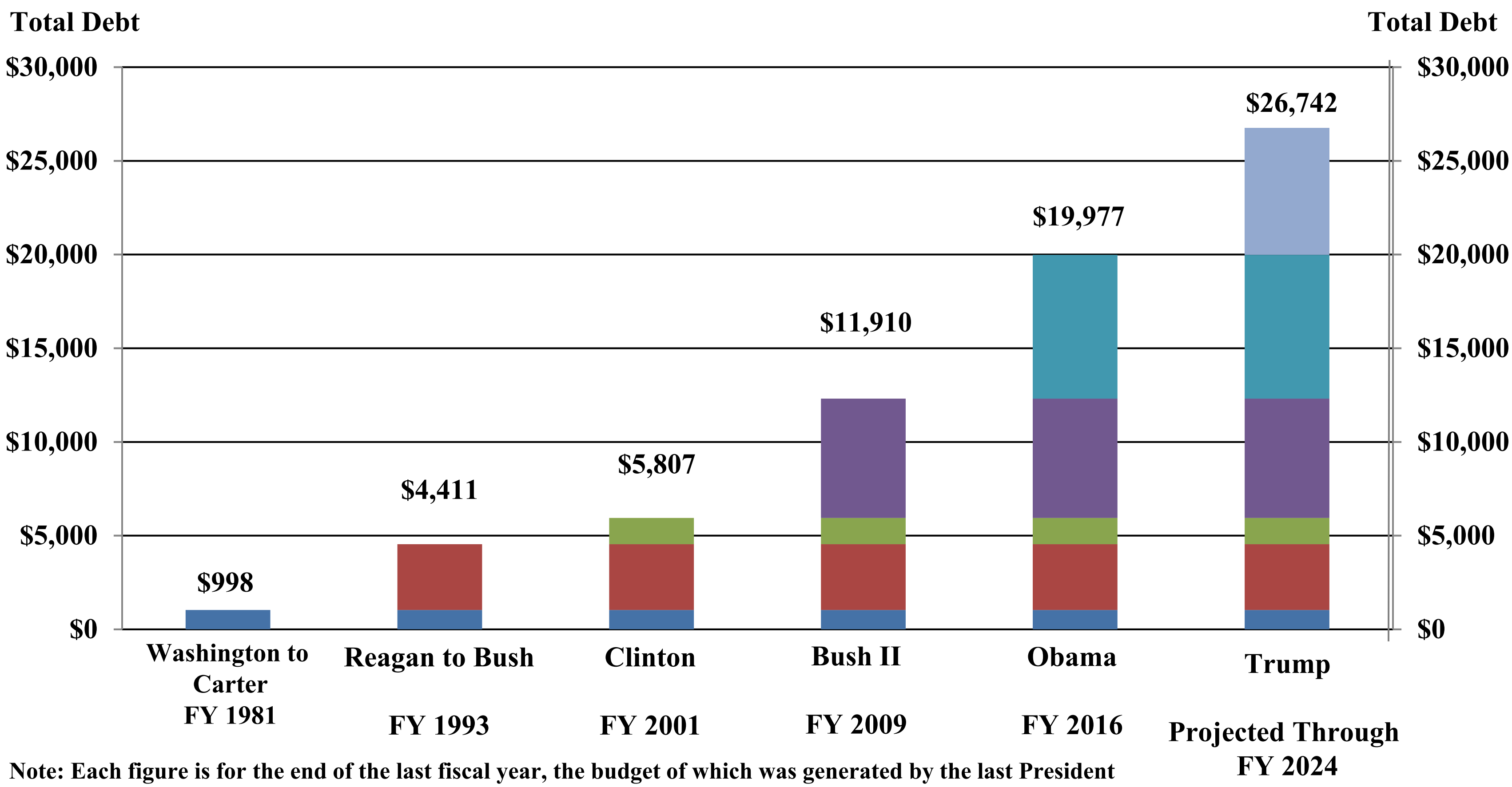
The Growth Of Federal Debt

U.S. Federal Government Total Debt
Billions of U.S. dollars, end of fiscal year



Note: Each figure is for the end of the last fiscal year, the budget of which was generated by the last President listed for each period. The fiscal 2017 figure is through July, the last period which data is available.

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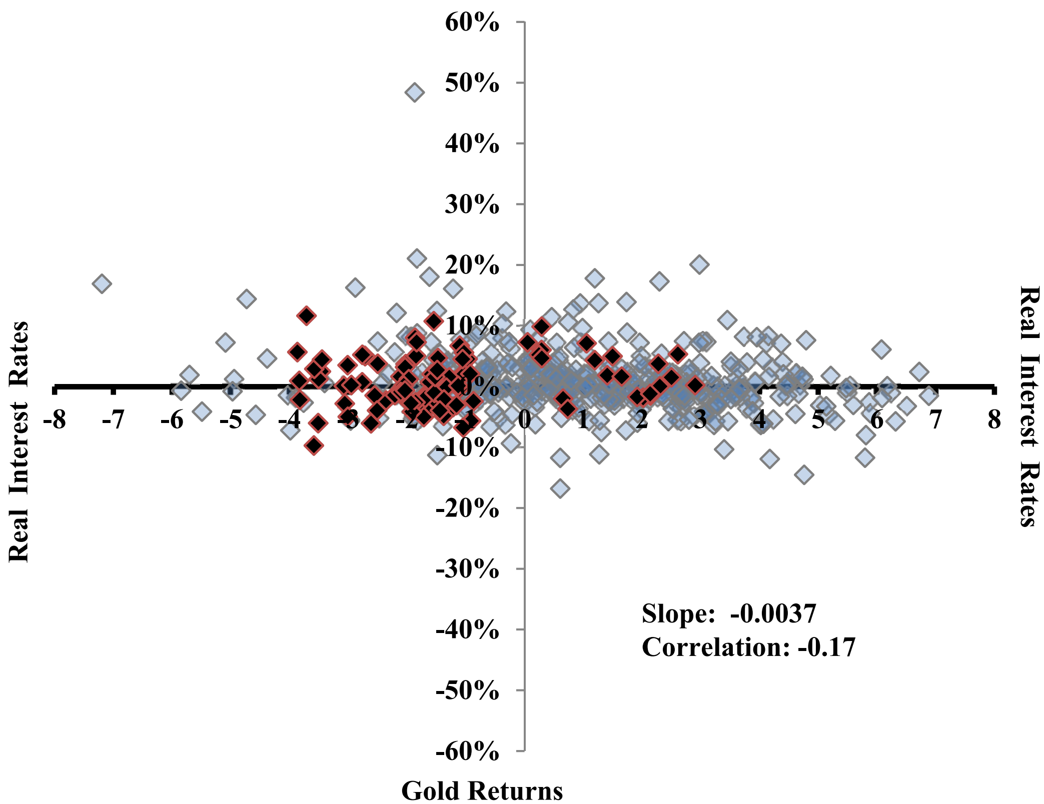
Interest Rates and Gold: The Empirical Evidence

Gold and Real Interest Rates are Virtually Uncorrelated

Returns on Gold and Real Interest Rates



Note: Monthly data from May 1968 through September 2017. Gold returns are based on changes in monthly average London PM fix gold prices. Real interest rates are U.S. 3-Month Treasury bills minus U.S. Consumer Price Index. Gold prices are the dependent variable and real interest rates are the independent variable. Data points in black are for those between September 2007 and July 2014.

- Higher real interest rates do not necessarily mean lower gold prices.

- The *reasons behind any interest rate increases, and the levels in real terms*, are critical variables in whether any change in interest rates has a measurable effect on gold prices. Another factor is the monetary policies in various countries.

- If rates are seen rising because inflation is becoming problematic, investors could become buyers of gold in spite of an increase in real interest rates.

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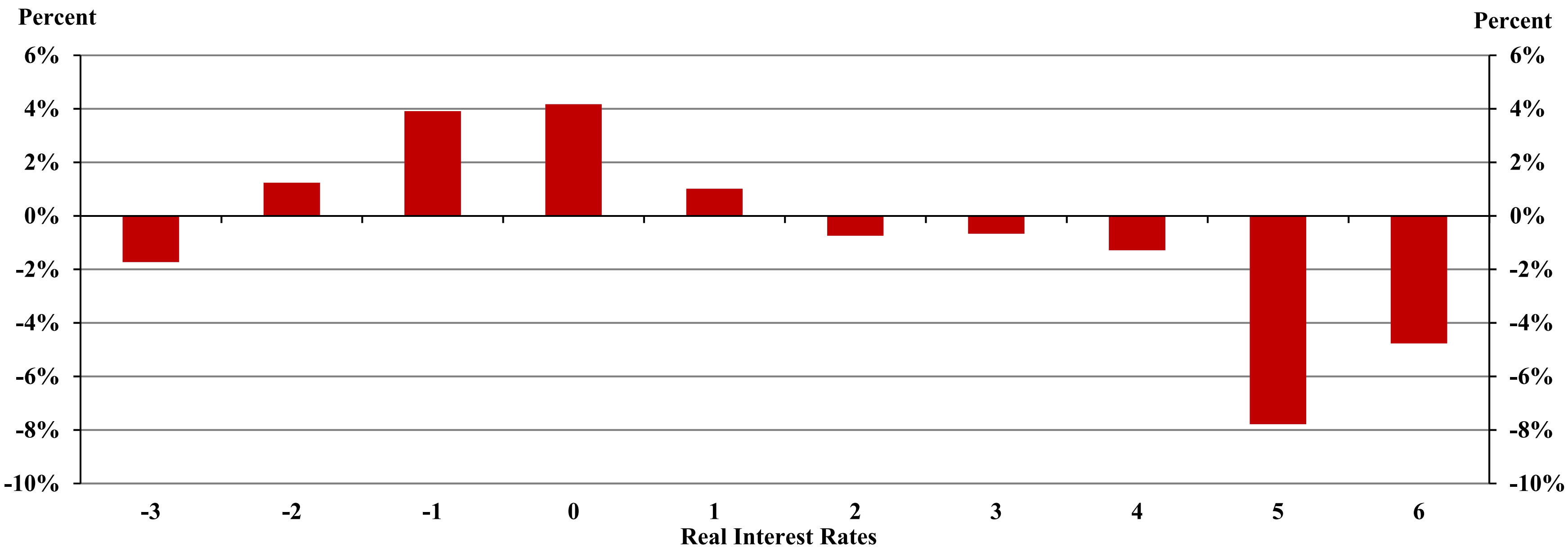
Gold and Interest Rates

Median Returns on Gold in Different Real Interest Rate Environments



Changes in Gold Price in Response to Change in Real Interest Rates

	Correlation	Slope
No Lag	-0.17	-0.0036
1-Year Lag	-0.03	-0.0007
2-Year Lag	-0.09	-0.0020
3-Year Lag	-0.09	-0.0020

Changes in Gold Prices in Anticipation of Change in Real Interest Rates

	Correlation	Slope
No Lag	-0.17	-0.0036
1-Year Lag	-0.16	-0.0033
2-Year Lag	-0.13	-0.0027
3-Year Lag	-0.13	-0.0011

Gold and The Dollar: The Empirical Evidence

The U.S. Dollar Is Neither Dead Nor Dying

Trade Weighted U.S. Dollar Index: Major Currencies

Monthly Data through September 2017

Source: Board of Governors of the Federal Reserve System/FRED

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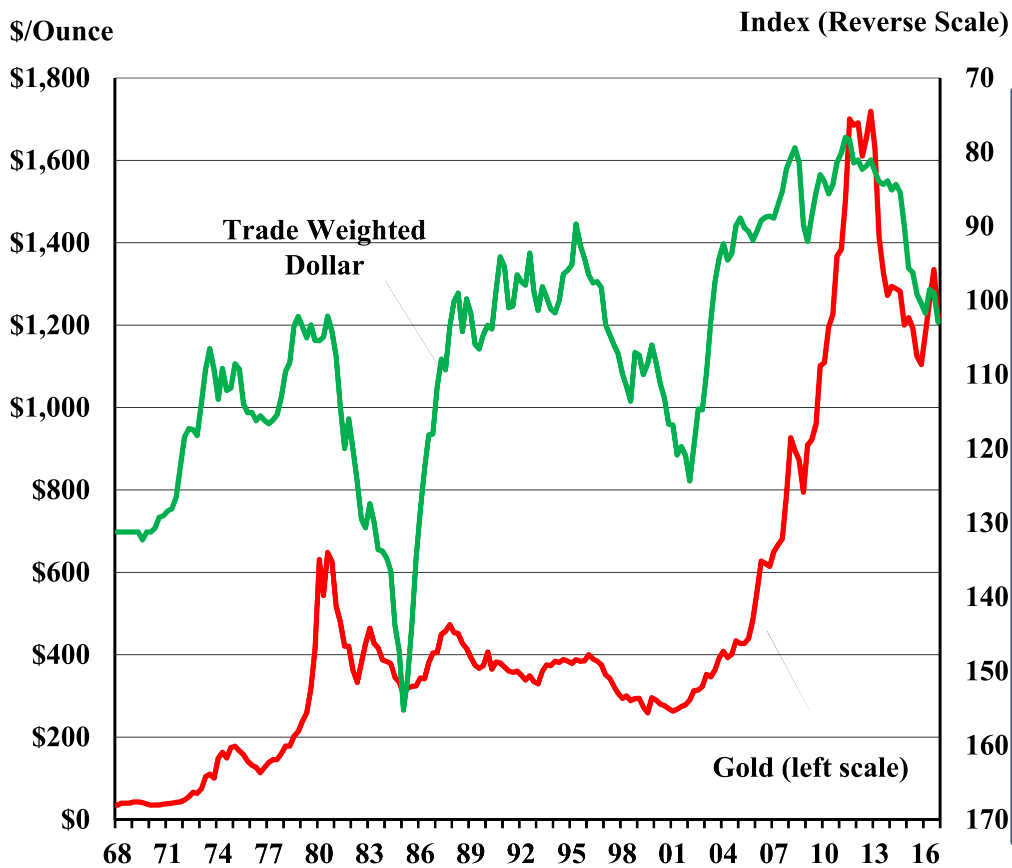
Not Always an Inverse Relation

Gold and the U.S. Dollar
Quarterly, Through December 2016



Correlation Of The Trade Weighted U.S. Dollar To Gold

Q1 1968 – Q4 2016	**-0.32**	
Q4 1976 – Q3 1977	0.96	Both Rising
Q3 1982 – Q1 1983	0.98	Both Rising
Q1 1986 - Q4 1990	-0.47	
Q1 1998 - Q4 2000	-0.52	
Q1 2002- Q3 2013	-0.40	
Q1 2005 - Q4 2005	0.54	Both Rising

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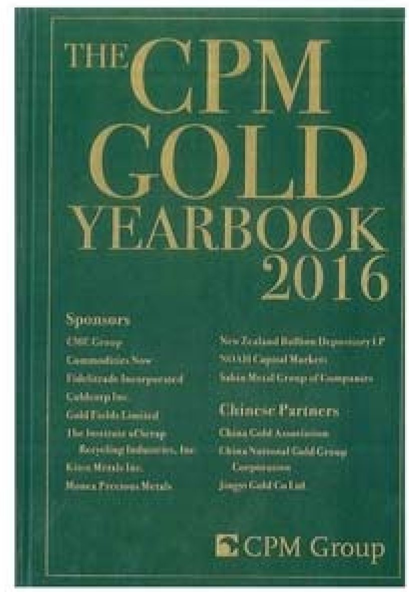
Research-Driven Research and Consulting

Thank You.



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